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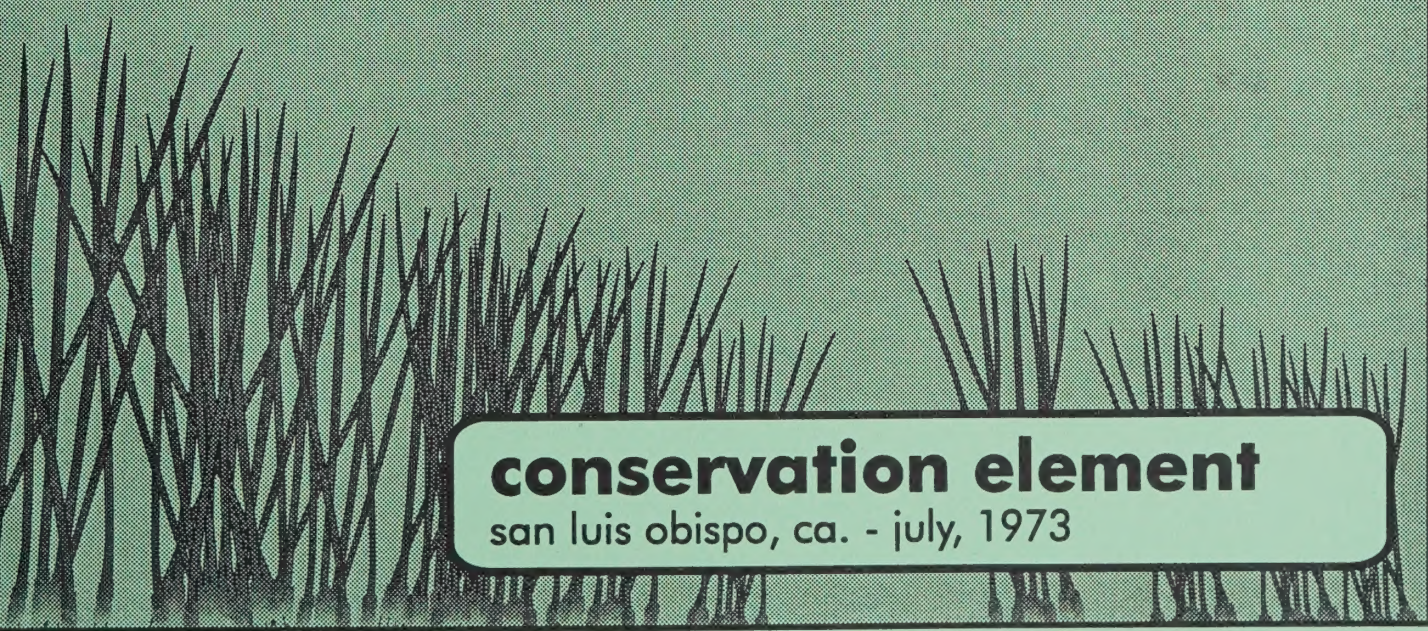

conservation element

san luis obispo, ca. - july, 1973

City of San Luis Obispo

Conservation Element

July 1973

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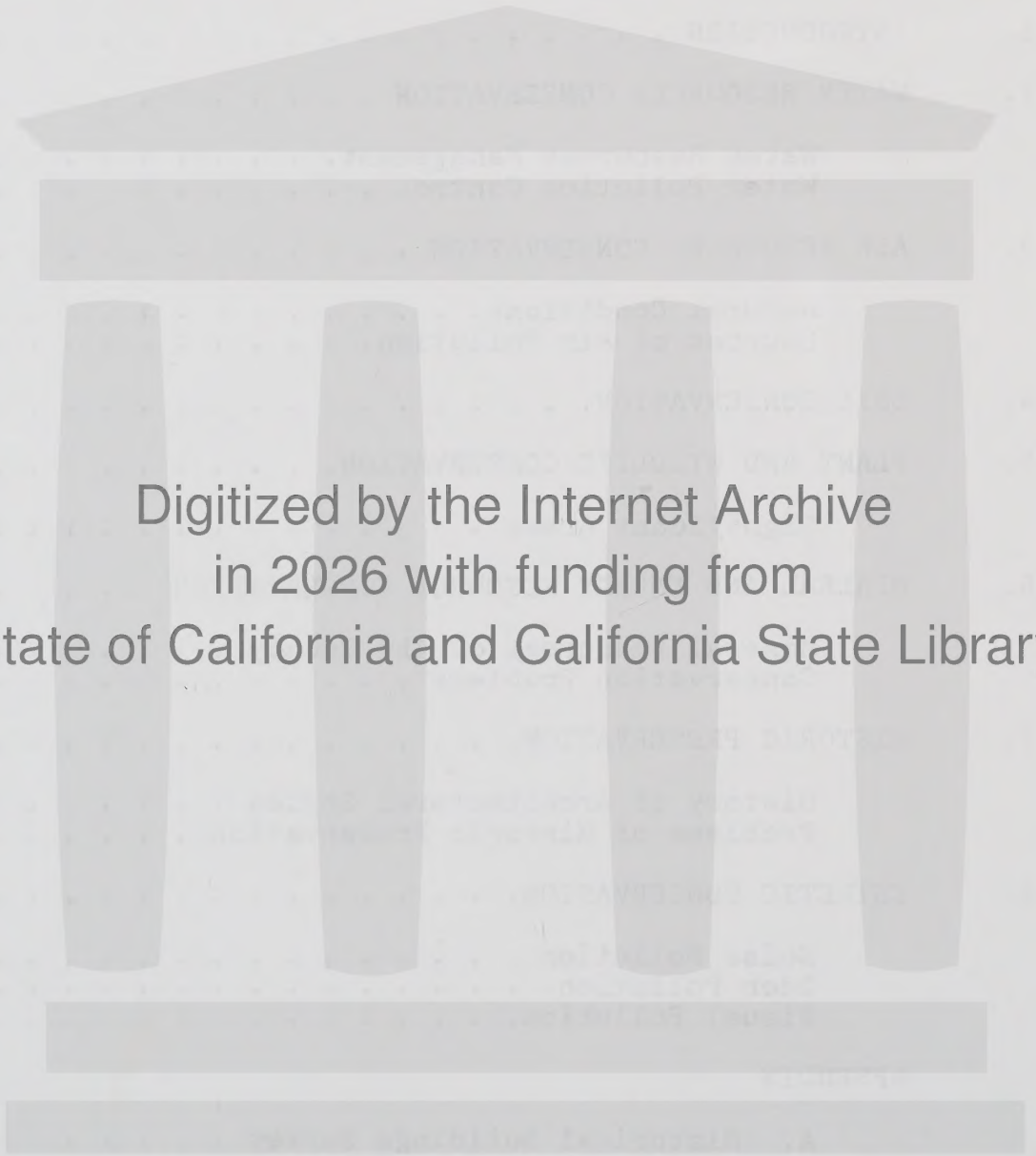
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CHAPTER 1

INTRODUCTION

Environment asks that man seek an ecological harmony and repays such effort with his own survival. Man also seeks a more profound understanding of himself so that he might design an environment of human relevance as well as human survival.

ANSEL ADAMS

Recent years have displayed increased concern throughout the nation over environmental quality. Particular issues such as a decline in the quality of our air resources, water resource depletion and quality degradation, and rapid depletion of our energy resources have caused environmental critics to vehemently address themselves to the problems. Often, so adamant has been the concern as to call for zero population growth and complete government regulation of certain natural resources to insure their conservation.

San Luis Obispo has been fortunate in avoiding much of the environmental destruction which has taken place elsewhere in California and the Nation. The environmental quality of our area ostensibly does not indicate a need for drastic action. Today, however, we are better able to realize that preventive action will be necessary to preserve the present quality of our environment, and it is for this reason in particular that the Conservation Element will be a valuable tool.

THE CONSERVATION ELEMENT

Definition

Conservation is the protection of natural resources to prevent wasteful exploitation or destruction. It can include the prudent economic use of a resource such as sand and gravel extraction, as well as complete preservation where warranted, as in the case of a wildlife preserve. In the application of conservation principles, however, the concept of natural change must be recognized and accommodated.

As a Requirement

All cities and counties in California are now required by State law to adopt a conservation element of their general plan. Section 65302 of the State Planning Laws require:

> "A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers, and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the county or city for which the plan is prepared. The conservation element may also cover:
>
> 1. The reclamation of land and waters.
> 2. Flood Control.
> 3. Prevention and control of the pollution of streams and other waters.
> 4. Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
> 5. Prevention, control, and correction of the erosion of soils, beaches, and shores.
> 6. Protection of watersheds.
> 7. The location, quantity, and quality of the rock, sand, and gravel resources."

Function of the Report

This document is intended to meet State requirements for the development of a Conservation Element of the General Plan. In addition to this general function, the Conservation Element will:

1. Serve as a sound framework for evaluating the interrelationships between various aspects of the environmental problem.

2. Provide more specific recommendations which will be needed for the formulation of additional standards and regulations pertaining to environmental quality.

3. Present guidelines for modification of city operations, where such operations may have a negative impact on the environment.

4. Represent a general data source for information pertaining to various environmental issues.

Preparation of the Conservation Element

This report was prepared under contract by the San Luis Obispo County Planning Department. The development of the County's Conservation Element proceeded on the premise that much of the basic research would be appropriate for the City's plan, primarily because both entities shared many common environmental problems. Additionally, the extensive array of citizens, scientists, government officials, and the County Conservation Advisory Committee (on which, several residents of the City served)provided invaluable and appropriate input for the development of both the County's and City's plan.

For the reasons then, of data availability and the need to reflect contextual relationships, this plan will frequently parallel the County's plan in many areas, even though the geographic area of concern is primarily the City of San Luis Obispo.

Environmental Impact Reports

There is a particular need for government officials to understand the environmental consequences of their decisions. In the past, large public projects or permits for private developments were approved without considering total ecological implications. This lack of attention has led to water pollution, soil erosion, and many other conservation problems which could have been avoided or reduced with proper study and use of preventive measures.

Continuing environmental irresponsibility by some local governments, as well as by State agencies, led to the passage of the California Environmental Quality Act in 1970. This law, which followed similar Federal legislation, requires environmental impact reports for large projects in the State. These reports are intended to inform government officials of the environmental setting for the projects, the ecological consequences of the projects, and alternatives and ways to reduce the environmental damage due

to the project. Following recent court decisions and changes in the law, impact reports are now required for many private developments as well as public projects. The City has adopted environmental impact procedures, which include methods of preparing and reviewing these reports as well as determining which projects require their preparation. The environmental impact report (EIR) serves as an informational document, and a project is not necessarily halted by an unfavorable EIR. The public agency or board has the power to balance economic and legal considerations against environmental concerns.

IMPLEMENTATION OF THE PLAN

The basic steps necessary for achieving conservation goals are listed at the end of each section. Several types of recommendations are made, and these are listed below.

- Changes in basic policy are advocated where conservation goals have not been clear.

- Revisions in adopted plans are recommended where those plans conflict with conservation needs.

- New or revised regulations are proposed to protect our resources, along with changes in present ordinance administration and enforcement practices.

- Taxation policies are evaluated, and tax incentives or penalties are recommended where conservation benefits can be derived.

- Changes in government operating procedures are advocated in situations where government operations have caused conservation problems.

- An important method of achieving conservation goals is through education. Although the results may be intangible at first, the use of education, both in the classroom and in everyday life, should be stressed as one of the best ways to reach long-term conservation goals.

- Recommendations are made for compiling environmental information and making it available. At present, research on local environmental conditions is scattered and incomplete.

- Improved coordination of government agencies to protect resources is needed. Greater communication among Federal, State, and local government officials concerned with

conservation would reduce duplication of efforts and other administrative problems.

BASIC GOALS AND POLICIES

The basic conservation goal for the City should be the maintenance of a high-quality environment. The following policies should be recognized and adopted by the City as essential to achieving this goal.

1. The City supports County conservation efforts; both in areas with which the City is directly concerned, and in areas of secondary consequence to the City.

2. Action should be taken whenever necessary to protect, rehabilitate, and enhance the environmental quality of the City.

3. The long-term protection of the environment should be the guiding criterion in City public policy decisions.

4. Consumption of non-renewable resources should be minimized. Renewable resources should be recycled or replenished.

5. Careful planning and management should be undertaken to prevent or correct degradation of the environment.

6. Individual rights should be safeguarded by proper application of government regulations. Restrictions on personal action should be applied only where necessary to achieve clearly-defined environmental objectives, and only where voluntary incentives or private initiative have not been sufficient in achieving these objectives.

7. Special protection should be provided for unique or endangered resources in the City. The elimination of wildlife or plant species due to man's activities should be prevented. Rare or unique historic buildings and other cultural resources should be preserved.

CHAPTER 2

WATER RESOURCES CONSERVATION

San Luis Obispo, like other areas of California is increasingly faced with greater demands on a limited water supply. In addition to those problems concerned with water depletion are the equally important problems of water quality degradation, and overall ecological considerations of water conservation.

Previous reports, however, generally have been limited to considerations of direct economic uses of water. This study is designed to supplement previous studies by emphasizing the protection of environmental quality in all areas of water conservation.

The Natural Water System

Recent years have witnessed substantial changes in the way water resources are viewed. Traditionally, water resources not being used for direct economic purposes have been viewed as "wasted". This limited concept of water usage is now becoming obsolete. The value of free-flowing steams for recreational and esthetic purposes is rapidly increasing, along with recognition of the important role of water in maintaining an ecological balance. Management of water resources can no longer be facilitated solely with respect to limited traditional considerations; the total value of water resources must be kept in view.

Historic Alteration of The Natural Water System

With settlement of the County, hydrological changes have been inevitable. These modifications have taken three major forms. First, dams and other facilities have been constructed to increase available water supplies. Second, water quality has generally deteriorated due to concentrated domestic, industrial, and agricultural wastes. Third, watershed areas have been altered by farming or development leading to changes in runoff.

The underlying causes of these problems are embedded in the area's social, economic, and political structure. In evaluating conservation problems, government policy makers are faced with the difficult decision of how to best serve the long-term needs of the entire population. This responsibility to all citizens, not just to special interest groups, must not be obscured.

WATER RESOURCES MANAGEMENT

San Luis Obispo is geographically in an area of very limited water resources. As the use level of these resources both by communities and by the agricultural industry approaches the limit of available supplies, it is becoming increasingly apparent that the most beneficial use of available resources must result from consideration of all sectors of water resources management. These include water supply, sewerage collection and disposal, flood control, water related recreation and environmental enhancement, and land use practices and management.

Within the urban area of the City and its surrounding watershed, each of the disciplines within the field of water resources management should be used to its fullest extent in order to maximize the benefits from available resources. This will require close coordination and management among the branches of municipal government presently responsible for or involved in each sector of water resources management.

Development of Local Resources

As the City has participated in major water resources development projects, such as the Salinas Dam project and the Whale Rock project, consideration of full utilization of locally available resources has not been extensively reviewed. These sources include local creek diversions, basin groundwater and waste water reclamation.

When a cost comparison is made between alternate resources and locally available resources within the City, those local resources in limited quantities may be a more feasible choice. In addition, use of local resources will decrease the City's dependence on imported water supplies during emergency situations and reduce the degree of City participation required in future development of regional water resources.

Development of Imported Water Supplies

The demand for water resources within the City have exceeded local supplies since approximately the 1920's. The City has therefore participated in the development of imported water supplies from the watersheds of the Salinas River and Old Creek. These supplies, which comprise the major portion of the City's supplies, will be fully committed during this decade.

If additional demands for water are to be adequately met, the development of additional imported supplies must be completed. The magnitude of such development appears to be greater than the City could reasonably undertake as an individual agency. Regional development of water supplies presently available to San Luis Obispo County, including diversions from the Nacimiento Dam and development of a portion of the State Water Project, are now under consideration by the County.

Water Rate Structure

The cost to the consumer of City water supplies has been based upon a rate schedule of traditional structure. The unit cost of water for an individual consumer decreases with increasing levels of usage. This stucture is based in part upon the premise that economies of scale in production and distribution may be realized at higher levels of use.

Simultaneously, higher levels of use have resulted in development by the City of progressively more expensive sources of water supply. The evolution of present sources have progressed from local surface diversions and the development of groundwater, to the implementation of plans for development of major imported supplies stored at Salinas Dam and Whale Rock Dam.

WATER POLLUTION CONTROL

In the recent past, it was assumed that wastes could be discharged into the environment in substantial quantities without adversely affecting aquatic resources. Waste discharges needed little consideration because of the presumed high assimilative capacity of receiving waters, and attention was focused only when water resources displayed obvious signs of quality degradation or simply became a nuisance.

Knowledge gained through advances in technology and science have evidenced, however, that certain constituents of wastes can result in far-reaching adverse effects on water quality and therefore on man's health.

Contamination Factors

There are several factors which determine the desirability of water quality. First, water quality needs are linked to human

health considerations. Toxic materials, radioactivity, or harmful bacteria in a water supply can result in epidemics or other health hazards. Second, additional water characteristics are vital to fish and wildlife. Changes in water temperature, amount of dissolved oxygen, pesticide residues, and the degree of acidity may be harmful to various species. Third, use of water for agriculture or industry requires that certain chemical standards be met. Finally, esthetics must be considered. Color, odor, and turbidity, (cloudiness) are important to water quality, even if health considerations are not involved. Likewise, floating materials, bottom deposits, and presence of nutrients leading to algae growth are involved in water esthetics.

Contamination Sources

Domestic sewage is a threat to both surface water and groundwater. Harmful bacteria are satisfactorily removed, but nutrients are not, and often the result is excessive algae growth.

Septic tanks are used to treat wastes in most rural areas. Generally, these are adequate, but improper location and operation of tanks has led to releases of harmful bacteria and algae-producing nutrients which are not neutralized. While widely-spaced septic tanks have not resulted in environmental problems, their increasing concentration in certain areas has become a threat to water quality.

Agricultural operations have also been responsible for water contamination problems. Salt-laden water drainage from irrigated farmland which often contains fertilizer and pesticides, is a threat to plants and wildlife, and may affect downstream agricultural operations. The greatest agricultural pollutant by volume is sediment; the problems of erosion and sedimentation will be considered under the chapter on soil conservation.

Recycling

In all methods of waste water disposal, more attention should be directed toward recycling. Instead of discharging effluent into the ocean or streams, it can serve a valuable role in recharging groundwater basins provided that the water is of suitable quality. Until now, the cost of recycling has been the major drawback, but indications are that it may soon become an economically feasible alternative.

PRESENT GOVERNMENT RESPONSE

A bewildering array of State and local agencies are involved in water conservation problems, and this section will discuss those with which we are more directly concerned.

Coordination

Where individual water problems are concerned, reasonably good coordination has been achieved. The State Water Resources Control Board, in June 1971, published an interim Water Quality Control Plan designed to serve as a guide for water quality management and waste treatment plant construction. The Regional Water Quality Control Board deals with entire watersheds rather than being limited to city or county boundaries. The County Flood Control and Water Conservation District again deals with large geographical areas in its monitoring and resource development programs. The County's Master Water and Sewerage Plan was prepared for the joint use of the County and incorporated cities; State projects were integrated with the Plan as well.

Water Resources Development

To supplement groundwater supplies, a major investment has been made in dams and reservoirs in the County. The State teamed with San Luis Obispo to construct Whale Rock Dam near Morro Bay, which is presently a major water supply for San Luis Obispo. The County-operated Salinas Dam at Santa Margarita Reservoir is also a major water supply for the City.

Monterey County's Flood Control and Water Conservation District built Nacimiento Dam, a major source of water for the Salinas River basin, and is currently being considered as an alternative source for the City. Another possible alternative source of imported water is the State Water Project. The State Department of Water Resources has undertaken this massive program to transfer water from streams and reservoirs in the northern part of the State to urban areas of the South. A branch of this system is planned to pass through the County.

Water Quality Control

Waste discharges are monitored by the Regional Water Quality Control Board for this area, under guidelines of the State. The

1970 Porter-Cologne Water Quality Control Act, considered the most comprehensive water quality control law in the nation, gave considerable powers to the regional boards. As a result, policies and standards for waste discharge have been developed for the County so that discharge requirements can now be enforced directly; a condition of pollution does not have to be proven first. In addition, cities and sewer districts come under the control of this board.

Water used for domestic supply must meet high standards developed by the U.S. Public Health Services and administered by the County Health Department. All municipal supplies and wells serving two or more parcels are periodically checked, and private wells are analyzed by the County on request. These water quality standards include limits for total dissolved solids, sulfates, and nitrates. Additional water quality studies are performed by the State Department of Water Resources, and County staff also check water quality in reservoirs.

Recycling

While some recycling of waste water has been achieved in the County, extensive beneficial use of this water resource has not been achieved. The initial cost of water recycling has obscured the valuable but intangible environmental benefits of using recycled water.

SUMMARY AND RECOMMENDATIONS

The conservation of our water resources is essential for San Luis Obispo. Without a carefully planned conservation program, water depletion and quality degradation will continue until the problem is one of necessity for human existence. And in addition to the consideration of human needs, the City needs to recognize the ecological, scenic, watershed, and recreational value of natural water features.

1. The City's present practices in the management of water resources should be comprehensively reviewed. Revised policies and procedures, including a method of centralized and coordinated management, should be developed in an effort to conserve present and future resources.

2. Policies on further development and population expansion within the planning area should be predicated on the City's capability to supply adequate water.

3. In review of the City's future needs for water, consideration should be given to full development of locally available water resources.

4. Development of additional imported water supplies to serve the City should be accomplished through participation in a regional plan of development such as the County's Master Water and Sewerage Plan.

5. Intangible values of water, including scenic and ecological values, should receive due consideration along with economic factors in water resource development.

6. Urban areas should be sewered and septic tanks prohibited in areas where contamination of groundwater would take place. Existing sewage treatment regulations should be updated and modernized, with the addition of stricter regulations where necessary. The disposal of domestic, industrial, or mineral wastes into watercourses or roadside ditches should be prohibited, unless requirements of the Water Quality Control Board can be satisfied.

7. Proper farming practices should be used to minimize adverse environmental effects on contaminated water drainage from irrigated farmland. Where high concentrations of animals and fertilizer occur, measures should be taken to prevent groundwater pollution.

8. The City's present water rate schedule, which favors high-level water consumers, should be reviewed and adjusted to reflect an effort to encourage practices which result in water conservation.

   Consideration should be given to increasing the unit cost of water above that level required for life support, perhaps to the extent that the unit cost of water would increase with increased use above a fixed per capita level.

9. Recycling of waste water for beneficial use should be required wherever feasible.

CHAPTER 3

AIR RESOURCE CONSERVATION

In the past, we were inclined to look upon our air resources as having the capability to supply an infinite quantity of clean air. Human activity seemed so minute in contrast to the tremendous space of the earth's atmosphere, that our consumption of this resource could have only an insignificant impact.

Today, we have witnessed the consequences of such erroneous beliefs. The tragic examples of many large cities is indication enough that we can no longer be indifferent to this potentially severe environmental problem. This chapter will focus on the general and specific concerns of air pollution to San Luis Obispo, and direct attention to needed efforts to maintain an adequate quality in this invaluable resource.

NATURAL CONDITIONS

It is clear that human activity is responsible for air pollution problems; all of those activities which consume energy resources, regardless of their form, release emissions into the atmosphere. Certain naturally existing conditions act to both lessen and increase the impact of those emissions on our environment, and this section will consider those conditions which have the greatest degree of influence locally.

Inversion Layers and Wind Patterns

Topographical and meteorological features in the City's vicinity are capable of both mitigating and intensifying air pollution problems. Perhaps the most serious situation, and one of the great concern locally, is the natural occurrence of an inversion layer. An inversion layer is a layer of warm air which acts as a lid to trap air pollutants; ground level air can rise only to the height of the inversion layer and no further. Because of this condition, pollutants cannot be dispersed through upward movement, instead, horizontal movement is necessary for dessimination. However, if this situation occurs in a valley surrounded by hills, the pollutants are trapped; and it is this problem with which we are particularly concerned in San Luis Obispo and surrounding areas. We are almost enclosed by mountins and therefore extremely vulnerable to this condition.

It has been reported by the California Air Resources Board that the average inversion heights in this County are probably at lower elevations than most areas of the State. It has been indicated that the warm air ceiling on the coast is often as low as 250 feet. With mountains bordering San Luis Obispo, and evidence of unusually low inversion levels, the potential for a severe air pollution problem must be underscored.

Fog

Those droplets of water suspended in the atmosphere known as fog represent another naturally existing feature of our environment, and serve several functions of which, some are beneficial and others detrimental to our air quality. Fog can inhibit the dispersion process of pollutants, change certain airborne gases to more harmful airborne acids, and reduce warming of the earth's surface which is necessary to eliminate inversions and aid in pollution dispersal. The City is frequently subjected to fog conditions because of the ocean breeze, thereby increasing air pollution problems.

Fog does serve a useful purpose through its ability to inhibit the formation of photochemical oxidant (smog), thus reducing air pollution to some extent.

Sunlight

Sunlight is another natural feature which serves opposing functions. By warming the earth's surface, it is valuable in overcoming inversion layers and thus aiding the escape of pollutants. However, sunlight also induces chemical reactions in the atmosphere which create dangerous pollutants; it is this process that forms the familiar photochemical smog of Southern California.

TYPES OF AIR POLLUTANTS

Gases and particulates are the two major categories of air pollutants. Particulates include solid matter or liquid droplets in the atmosphere. Gases primarily include carbon oxides, sulfur oxides, nitrogen oxides, hydrocarbons, and photochemical oxidants. The most recent Countywide distribution of air pollutants is shown in Figure 1 where the breakdown is by type, and in Table 1 where the breakdown is by source. The following pages will be referenced to those breakdowns.

Particulate Matter

A great deal of particulate matter is found naturally in the atmosphere, and they become pollutants only when they are concentrated or have hazardous characteristics. Smoke, fly ash, fumes, dust, and mist refer to various particle sizes. Because of its light-scattering properties, particulate matter is a major cause of haze. Soot (carbon particles) is one of the more common air pollutants and has the ability to carry more dangerous substances which may create potential health hazards. Other particulates have direct toxic characteristics such as various metals like lead, beryllium, and arsenic. Asbestos dust is another particulate with potential health hazards.

Carbon Monoxide

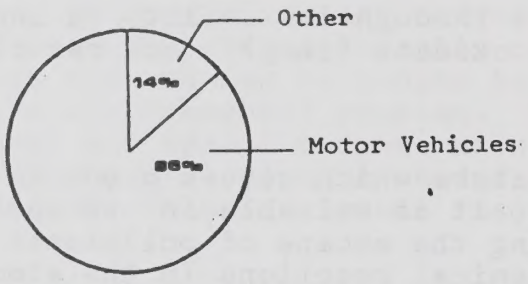
This is an invisible and odorless gas, produced in great quantity by automobile engines. Its effects can be dangerous because of its ability to reduce the blood's capacity to carry oxygen, and in highly concentrated forms can kill.

TABLE 1

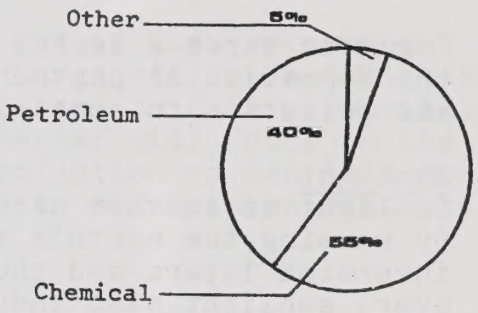
PERCENTAGE OF EMISSIONS
FROM MAJOR SOURCES IN SAN LUIS OBISPO COUNTY
1970 (REVISED)

Source: Air Pollution Control District
TPD - Tons Per Day

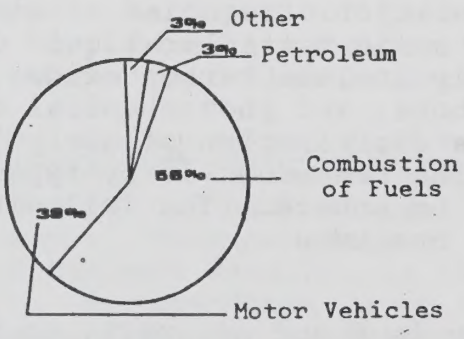
Carbon Monoxide
141 TPD



Sulfur Dioxide
25.3 TPD

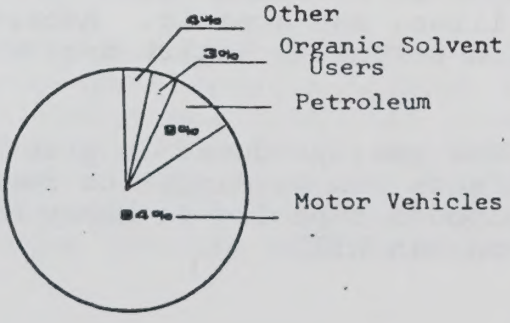


Nitrogen Oxides
34.4 TPD

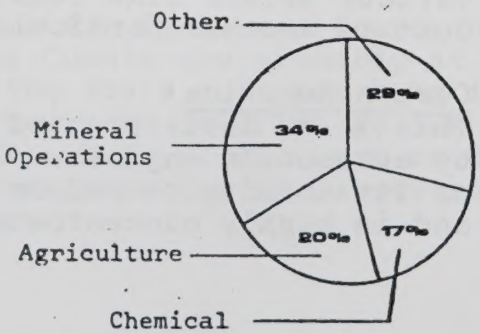


S.L.O. County Total Emissions	
Organic Gases	20.9 TPD
Nitro. Oxides	34.4 TPD
Carb. Monoxide	141.0 TPD
Particulates	12.5 TPD
Sulfur Dioxide	25.3 TPD
Other	20.9 TPD
TOTAL	255.0 TPD

Highly Reactive Organic Gases
20.9 TPD



Particulate Matter
12.5 TPD



Sulfur Dioxide

This gas, which results from the burning of fossil fuels, can be dangerous to humans, animals, and plants. It is a colorless gas with a pungent odor, and after further oxidation in the atmosphere, may unite with water vapor to form airborne droplets of corrosive sulfuric acid.

Nitrogen Oxide

Nitrogen oxides are produced by high-temperature combustion processes, particularly motor vehicles and power plants. They are yellow-brown in color and the visible component of the "Los Angeles Smog". This gas is toxic to both plants and humans in high concentrations, but its most important characteristic is its role in forming photochemical smog.

Hydrocarbons

Although most hydrocarbons are relatively harmless, two groups of compounds present problems; olefins and aromatics. Olefins, like nitrogen oxides, play a role in photochemical smog formation, while aromatics include some chemicals known to cause cancer. Hydrocarbons are released into the atmosphere by incomplete combustion and evaporation of gasolines or other fluids.

Photochemical Products

Sunlight acts on nitrogen dioxide and reactive hydrocarbons in the atmosphere to form other air pollutants. Along with peroxyacl nitrate, ozone is one of the most insidious of these "secondary pollutants". High ozone levels have required numerous smog alerts in Los Angeles. Ozone and peroxyacl nitrate are the substances which usually cause eye irritation on days with heavy smog, and can have more serious physiological effects as well. In addition, many chemical transformations aided by ozone produce other complex and dangerous products once the process has begun.

Radioactivity

With a massive nuclear power plant under construction at Diablo Canyon, the potential dangers of radioactivity in the atmosphere should be noted. Little is known about the effects of small amounts of radiation over long periods, but large doses have known severe effects, and elaborate precautions have been taken to protect the general public from known radiation problems emanating from this source.

SOURCES OF AIR POLLUTION

Approximately two-thirds of the total measured pollution tonnage in the County is released from mobile sources, and motor vehicles account for nearly all pollution in this category. Other contributors include aircraft, ships, and railroads.

Stationary sources contribute approximately one-third of the total measured air pollution tonnage. The source distribution is shown in Table 1. A minor share of air pollutants migrate into the County from other areas, including the San Joaquin Valley and northern Salinas Valley.

TABLE 1

AVERAGE TONS PER DAY OF AIR POLLUTANTS
BY SOURCE - SAN LUIS OBISPO COUNTY*
1970 (Revised)

	Tons Per Day	% of Total
Stationary Sources	87.1	34.2
Petroleum	17.2	6.7
Solvent Users	3.2	1.3
Chemical-Metallurgical-Mineral	20.6	8.1
Incineration	12.3	4.8
Combustion of Fuel	21.1	8.3
Agriculture	12.7	5.0
Mobile Sources	167.9	65.8
Motor Vehicles	159.8	62.7
Aircraft	6.7	2.6
Ships and Railroads	1.4	0.5
TOTAL	255.0	100.0

*Source; Air Pollution Control District

PRESENT GOVERNMENT RESPONSE

Control of air pollution involves Federal, State, and local agencies. The following regulations represent the more significant.

Federal Government

The Federal government, particularly through the Air Quality Act of 1967, has established (1) air quality control regions throughout the nation, (2) criteria for air quality, (3) insures that States establish and enforce air quality standards. The Atomic Energy Commission regulates radioactivity levels, and the Environmental Protection Agency has assisted with County monitoring programs.

State Government

State regulations emphasize control of mobile sources. The State Air Resources Board has adopted strict vehicle emission standards for carbon monoxide, oxides of nitrogen, and hydrocarbons. Some technical studies are performed by the Board, which also has the power to monitor sources and take enforcement actions. Vehicle checks are conducted by the Department of Motor Vehicles and the California Highway Patrol, although enforcement is difficult and

expensive. The State Division of Forestry issues agricultural burning permits on "burn days" designated by the Air Resources Board, with enforcement handled jointly by the Division of Forestry and the Air Pollution Control District.

Local Controls

The County Air Pollution Control Board, established in 1970, regulates local stationary pollution sources and has recently been reorganized into the County Agricultural Commissioner's office. The Board, whose members are the County Supervisors, appoints a three-member Hearing Board to consider appeals. A detailed air pollution control ordinance has been adopted which includes emission standards for industrial operations, as well as controls on incinerator and open burning. Enforcement is handled jointly by the Air Pollution Control officer and other County Agricultural Commissioner staff.

Present County rules prohibit most open burning, except in certain cases where agricultural burning is permitted, and the City prohibits all open burning within its incorporated boundaries.

There has been some coordinated effort with Santa Barbara County regarding air pollution control. The South Central Coast Air Basin Council was established in 1971 so that such a joint effort could be made. The Council prepared and adopted a report in November 1971 to implement pollution control programs, however, the Air Pollution Control District has not yet adopted a program to carry out the recommendations of the Implementation Plan.

SUMMARY AND RECOMMENDATIONS

Air pollution is a matter of great importance in San Luis Obispo. We are not presently confronted with a critical situation, but preventive action will soon be necessary in order to maintain the status quo. In the future, controls on air pollution will affect the attitudes, habits and lifestyles of our citizens; and the future quality of our air resource will depend on the manner in which we respond to the challenge before us.

This chapter has been directed at the natural and artificial agents which contribute to air pollution, local sources of pollutants, and existing controls. The following recommendations are designed to deal with current and anticipated problems.

1. Air quality needs must be an important consideration in the City's and County's planning efforts, with emphasis on maintaining an orderly expansion of both population and economic growth, based on the ability to preserve our air resource.

2. The City should cooperate with the County in conducting detailed studies to determine maximum development levels which can be allowed without endangering air quality. To supplement present air resource reports, the characteristics and capabilities of our air basin should be determined so that guidelines for the orderly expansion of population and development may be established, based on technological ability to control air pollution.

3. A reasonable population growth policy should be followed by:

    a. regulating the use of public funds for promotion and advertising

    b. applying appropriate zoning to implement the General Plan

    c. examining the cost of second home developments and increasing the tax thereon if justified

    d. encouraging birth control programs

4. Data gathering systems to monitor trends in power consumption should be established. This information could be based on sales taxes of gasoline and other fuels, as well as natural gas sales figures and oil refinery fuel consumption statistics.

5. Regulations pertaining to emissions, particularly from motor vehicles, need vigorous enforcement. A mobile unit and an instrument technician for monitoring air pollution is needed.

6. High emission standards, supported by frequent maintenance of all government vehicles operating in the County, should be established. Fuel for County and City operations, for heating as well as transportation, should be selected to minimize pollution. Research and experimentation with non-gasoline fuel sources should be undertaken, and conversion of public vehicles to propane or other low-polluting fuels should be carefully considered. Other motor fleets in the County should be encouraged to take similar action.

7. An area-wide regulatory approach is needed considering an entire air basin as a unit for proper air quality management. More active coordination is needed with neighboring counties on the matter of air pollution control. A unified Air Pollution Control District should be formed.

8. Transportation route selection should include greater consideration of air pollution potentials. New routes with severe meteorological problems should be avoided. Planners should also insure that necessary cuts and fills for proposed routes do not interfere with normal air flow; an improperly located embankment can cause a local concentration of pollutants.

9. Investigation of locations for heavy industry should include greater attention to meteorological and topographical characteristics. Industrial zoning should be reduced where necessary.

10. The County, the City of San Luis Obispo, and other incorporated communities should examine adopted general plans for their potential effect on air quality by promoting population growth and dispersion. Policies condoning leapfrogging beyond fringe areas, rather than providing for orderly expansion outward from the city centers, should be ended because of the increased driving and hence air pollution due to urban sprawl. Future plans should include provisions to reduce the need for driving and increase opportunities for walking and bicycling to stores, schools, and other destinations.

11. The weakening of County ordinances by the State legislature and power groups should be prevented.

12. Facilities for low-polluting transport systems should be initiated. Public and private mass transport systems should be promoted.

CHAPTER 4

SOIL CONSERVATION

For thousands of years, the forces of wind and water on rocks have combined with the slow accumulation of plant debris to produce our soil resources. Rich, deep soils have been deposited in valleys, in contrast to fragile mountain soils only a few inches in thickness. Soil, water, air, plants, and animals form a complex circuit of energy which can be disturbed easily. If this vital, life-giving process is not understood and accepted by man, the ecological consequences can be disastrous.

Soil Erosion

The continuing natural process of erosion plays an important role in our environment. Material washed from mountain slopes has built up the fertile valley soils in and around San Luis Obispo. Soil erosion becomes a problem only when man accelerates the erosion process by upsetting delicate natural balances. Once started, artificial erosion is a relentless, one-way process, resulting in gullied hillsides, silt-choked streams, and useless farmland. Soil erosion problems are caused by clearing of vegetation and grading for construction projects, as well as improper farming practices in rural areas. Other activities which expose the land surface by damaging plant cover, auch as off-road vehicle use, have also caused erosion problems.

Other Soil Problems

Along with erosion, disruption of natural balances can also lead to loss of fertility through the depletion of organic matter and minerals. Compaction of soil from overgrazing or vehicle use can also damage the ability of soils to support plant growth. In urban areas, soils can disappear completely under a layer of buildings and pavement.

Urbanization and Soil Conservation

Prime agricultural lands often are the major target of urban growth, since it is easiest to build new streets and homes in these level, well-drained areas. The continuing loss of this valuable resource is particularly pointless, since there is generally ample room for urban expansion in other areas.

The method of urban development can have an important bearing on the degree of conservation problems. In some cases, land has been cleared years before construction takes place, exposing the soil surface to needless erosion. In other situations, natural drainage patterns have been ignored, with little or no consideration for overall environmental needs.

Rural Problems

Although San Luis Obispo is not directly confronted with the numerous soil conservation problems which the County faces, it is worthwhile to note that overgrazing, cultivation of steep slopes, and unrestricted vegetation removal give rise to serious soil erosion problems. Underlying some of these problems, is the tendency to make more intensive use of available lands because of land value speculation and increasing property taxes.

PRESENT GOVERNMENT RESPONSE

Federal, state, and local governments are involved with soil conservation in the management of public lands or as advisory sources for private landowners.

Federal Government

The Soil Conservation Service, a component of the United States Department of Agriculture is responsible for preparing soil surveys as well as advisory bulletins and research dealing with the facets of conservation. Financing of recommended conservation projects can be accomplished through the Agricultural Stabilization and Conservation Service. Other Federal agencies involved with soil conservation through administration of property include the Forest Service, the Bureau of Land Management, and the Department of Defense.

State Government

The State Division of Highways has jurisdiction over many miles of highway right-of-way. Each new project under State and Federal law, must be prefaced by an environmental impact study. The report must deal with potential effects on soils as well as other resources, and alternatives must be offered if the environment is adversely affected.

State advisory agencies include the Division of Forestry and University of California Agricultural Extension Service. These agencies, at the invitation of the landowners, provide guidance on production and conservation practices.

Local Government

The City and County have a grading ordinance to insure that correct engineering practices are followed, to preserve the natural beauty, and to protect property owners from unnecessary loss from erosion and flooding as a result of any grading operation. The building official can require replacement of groundcover, as well as irrigation to assure groundcover establishment.

No explicit soil conservation measures are required in the Zoning Ordinance, however, many uses require a conditional use permit and various conditions can be required for use permit approval.

Recent adoption of Environmental Impact Procedures will also allow for the review of certain projects with regard to their effects on soil and water, as well as other resources. Recommendations can be made and conditions attached to projects which will mitigate any significant adverse effects.

The Soil Conservation Service recently completed a soils survey in and around San Luis Obispo, as well as most of the southern portion of the County. This detailed information was assimilated on a map which is included in the City's preliminary Open Space Plan, and will be valuable in examining present and proposed land uses and development projects.

SUMMARY AND RECOMMENDATIONS

Conservation of soil resources, along with many other areas of conservation, is in need of prompt consideration and action. One of the greatest problems in starting a sound soil management program involves the coordination of on-going projects and agencies. Many of the tools for soil conservation have been created; it is essentially a matter of putting them to use.

This section has considered the significant problems regarding soil conservation by examining the two primary areas of urbanization and rural soil mismanagement. The following recommendations are suggested for implementation of a sound soil conservation program.

1. The Soil Conservation service is a primary vehicle for conservation, providing technical assistance through locally administered agencies. The City should seek the advice of this Federal agency, particularly where land use and evaluation of development projects is concerned.

2. Urban development on prime agricultural land should be avoided, with agricultural zoning applied to worthy lands to insure their preservation.

3. The City's Grading Ordinance should be adequate for the present, however, the regulations of this ordinance should be strictly enforced.

4. Removal of groundcover in long-term advance of development should be prevented, and emergency measures to prevent soil erosion should be utilized during and immediately after construction.

5. The alteration of natural drainage patterns should be minimized, and plans should include necessary construction to stabilize runoff and silt deposition. Alternatives to conventional engineering solution, with greater environmental emphasis, should be encouraged.

6. Greater effort should be made to insure that sufficient green areas or open space, as called for in the Zoning Ordinance, are included in all development.

7. Property owners should be encouraged to improve or preserve soil conditions through technical advice from professional agencies. In particular, owners should be encouraged to obtain engineering advice for individual grading projects. More promotion is needed for soil improvement programs.

8. An erosion control zone should be implemented in areas not yet urbanized. This zone would be used to control grading, removal and replanting of vegetation, maintenance of problem areas and implementation of specific plans for erosion control.

9. Within the City's sphere of influence, conversion of grazing land to cultivated land should be limited to soils of Class I through IV, as identified by the Soil Conservation Service. Exemptions to these soil classifications should be permitted only after careful investigation and assurance that the operator can and will protect the soil while producing a cultivated crop.

CHAPTER 5

PLANT AND WILDLIFE CONSERVATION

San Luis Obispo is fortunate in having a wide variety of plants and wildlife both within the City, and within its planning area. The creeks which wind through the City support an abundance of vegetation, wildlife and fish, and provide an esthetic quality which is indeed rare within an urban setting. The rising mountains, again support substantial vegetation and wildlife, and add an immeasurable quality to our urban environment.

The delicate natural balance between plant life, wildlife species and all facets of their surrounding environment has evolved over thousands of years, with each living organism serving an important function in the ongoingness of our ecosystem. It is important then, for man to recognize that he is a part of this complex arrangement, and that a major disruption of this arrangement can give rise to a chain reaction with far-reaching implications.

Plant Conservation Problems

Urbanization is perhaps the greatest threat to plant life. Land subdivision and building construction, usually accompanied by grading and sometimes requiring channelization of natural waterways, often results in massive clearing of trees and other vegetation. While some disruption of plant cover is inevitable in areas to be developed, many trees and plants have been needlessly destroyed.

Our ecological community is constantly realizing some degree of change and adjusting to new conditions, and it would be ecologically unsound as well as impractical to attempt to preserve our community just as it is. Conversely, indiscriminate disruption of natural plant cover could be disastrous. The focal point of plant conservation, then, should be to keep man's alteration of natural plant communities to a minimum, while recognizing and working with natural processes of change.

Wildlife Conservation Problems

As with plant communities, direct destruction of wildlife habitat often results from land subdivision and construction in undeveloped areas. Another problem for many species is the expansion of the "zone of distrubance"; additional noise may cause many animals to leave an area entirely. A more obvious problem results from dredging and filling of wetlands and waterways. It is

apparent, then, that in order to protect our wildlife, it is essential to protect the territory required by each species.

SIGNIFICANT AREAS

There are a number of important areas within the San Luis Obispo planning area with respect to their plant and wildlife value. They are important in that a significant amount of vegetation and wildlife is found in the area, and because they are completely or relatively undeveloped.

This section will point out the major areas. It does not attempt to delineate boundaries, nor to determine specific recommendations regarding them. Rather, this study only intends to establish the importance of these areas, and to suggest their need for special recognition in future planning. The areas are (1) the waterways system, (2) the peaks, (3) Laguna Lake, and (4) Reservoir Canyon.

Waterways System

The creek systems in San Luis Obispo are a significant element of the environmental quality of the City, and a very uncommon asset. In addition to their value for watershed drainage and their esthetic quality, they are essential as a supportive system for a considerable quantity of vegetation, fish, and wildlife. The waterways system has successfully fostered a number of migratory fish including steelhead, sculpins, sticklebacks, lamphreys, occasional striped bass, and crayfish. Indications are that the numbers are decreasing, but the creeks support substantial numbers of fish, particularly during the winter and early spring.

Fish life in our creek system is much dependent on our ability to maintain the creeks in a relatively natural condition. Vegetation and insect life along the creeks are invaluable as a supportive system providing food and shade, and if disturbed, could discourage fish and wildlife use. An additional problem results when wastes are dumped into the creeks. Although this is not a frequent problem, it has been evidenced, particularly during the first rains of the year. Finally, development which would alter the natural condition of the creeks, or preclude the migratory pattern of fish, can have direct adverse effects.

The Peaks

Bishop and Cerro San Luis Obispo peaks lie within the planning area and abound in vegetation and wildlife. The vegetation types and communities of these peaks are varied and numerous, with primarily annual grasses, weeds, sage and chaparral types in the lower areas. Moving to higher elevations, one may find chamise and other hard chaparral, with evergreen and a mixture of some coastal live oak in the upper regions. It is not difficult to realize that wildlife species are abundant in the area, representing

typical species which inhabit grassland, chaparral and oak woodland communities. In the southeastern portion of the planning area, Islay Hill contains some vegetation and wildlife, though to a much lesser degree.

Residential development has been creeping up the mountain sides, particularly in the last few years as developable residential land has become increasingly scarce and the demand for "view" lots has increased. Any extensive development or altering of the natural landscape could upset the existing natural community. It is not likely however, that development would be feasible at the higher elevations of the peaks because of engineering difficulties and inadequate water supplies. The County Planning Department is currently revising a plan which will consider in much more detail, feasible land uses for all of the peaks from Islay Hill to Morro Rock.

Laguna Lake Area

Laguna Lake and the surrounding marshlands are densely vegetated and valuable habitat for waterfowl, fish, and other wildlife. Among the numerous species found on the lake are the more uncommon Red Head ducks, Virginia Rail, Whistling Swans, and perhaps still the very rare and endangered Clapper Rail. Further development at the water's edge, particularly on the northwestern perimeter, could have a severe negative impact on local and introduced species. The local chapter of the Audubon Society has recommended that further alteration of the shoreline below the 127 foot contour be prohibited, and that the County and City work toward acquiring the undeveloped shoreline to insure its preservation.

Professor Aryan Roest of Cal Poly has developed and presented to the City, a plan for a wildlife display at Laguna Park. The plan calls for a plant and wildlife display to serve both a recreational and educational function. The plan is currently under consideration, but insufficient funding is the major drawback.

Another interesting area and one of plant and wildlife value is the small eucalyptus grove south east of the lake. It lies just south of Madonna Road and east of Oceanaire Drive. Although it is a rather small area, the tall trees provide nesting sites for a number of interesting and valuable species such as the Blue Heron, Red-shouldered Hawk, Barn Owl, and winter roosting for thousands of more common birds.

Reservoir Canyon

A walk through this densely vegetated area along San Luis Obispo Creek is evidence enough to indicate its paramount importance as a wildlife habitat. It contains the plant types found in other areas of the City, but also provides a natural and remote environment for numerous birds and wildlife.

Its present natural condition is ideal for nature walks, and will remain so if care is taken to preserve its quality. As part of a watershed drainage area with steeply sloping mountains on either side, development would not appear desirable in much of this wilderness area.

PRESENT GOVERNMENT RESPONSE

Most of the present wildlife protection efforts are handled at the State level. The California Department of Fish and Game has been given the responsibility to collect and evaluate wildlife information, to establish and enforce hunting and fishing seasons, to improve and manage wildlife habitat, and to provide public information on wildlife conservation. The Department has a small staff in the County to carry out these programs. Another State agency, the Central Coast Regional Water Quality Control Board, has been established to protect water quality, including special consideration for fish and other wildlife needs.

A Federal agency, the U.S. Bureau of Sport Fisheries and Wildlife, is also involved in wildlife management. This bureau is particularly concerned with migratory waterfowl and other species, including marine life.

As regulators of private land use, the County and City are indirectly involved in wildlife protection. The grading ordinance includes standards to control soil erosion and the related loss of stream habitat. However, the ordinance primarily concerns itself with engineering standards, rather than wildlife habitat needs. Until recently, planning efforts have included only token consideration of wildlife needs, although implementation of the Open Space Element will provide a considerable step toward needed wildlife protection. The agricultural preserve program is of major benefit to wildlife, since it reduces land ownership breakdown in undeveloped areas and therefore keeps habitat disturbance to a minimum.

The City is responsible for regulating land development on private property, including control of vegetation removal, and a detailed tree ordinance has been adopted as a part of the Municipal Code. On a more general level, the County and City are responsible for long-range planning, which includes the need to protect areas of natural vegetation.

The City Public Works Department is responsible for cleaning all the major creeks in town at least once a year. This includes the removal of brush, debris, and any other material which may restrict flow and cause flooding.

SUMMARY AND RECOMMENDATIONS

This chapter has considered plant and wildlife conservation problems, and areas in our community which appear to be significant in those respects. Continued and expanded efforts are needed to insure the ongoing quality of these very important conservation matters.

1. The City should adopt a policy which recognizes the value of plants and wildlife, with a greater emphasis on these factors of our environment in future planning efforts.

2. The areas discussed in this chapter should receive particular recognition as valued plant and wildlife areas, with greater efforts to preserve them. Among the efforts should be:

    a. New subdivisions should be evaluated for their effect on plants and wildlife.

    b. Developments which are not contiguous to present urban areas should be carefully studied, since their effect is more likely to be significant.

    c. Moderate and high densities should not be indicated for areas of dense vegetation and wildlife.

    d. The Planning Commission should exercise its authority to deny development applications for areas not presently urbanized if such development will cause significant damage to plants and wildlife.

    e. The creek systems should be recognized for their value in supporting migratory fish. Anything which might be detrimental to fish life, such as alteration, encroachment, and the dumping of pollutants into the creeks should be prohibited.

CHAPTER 6

MINERAL AND ENERGY RESOURCE CONSERVATION

The conservation of mineral and energy resources is a matter of great importance to all communities. The misuse of resources in one area can directly or indirectly affect even far-removed areas. The subject of mineral and energy resource conservation is probably more directly a County problem and most of the discussion in this chapter will concern itself with areas outside the City's sphere of influence. However, the City realizes that it has much at stake in this matter, and that its well-being is largely dependent on the efforts made in other portions of the County. For this reason, this chapter will be concerned with matters which may not be directly within the City's realm of influence, but the City will support the County in its efforts to insure the conservation of mineral and energy resources.

Historical Perspective

Although the annals of San Luis Obispo County history will tell about the dominance of an agrarian society and economy, it will tell little of the exploitation of its mineral resources. From the earliest days, settlers of this County have attempted to capitalize on the various mineral types as they were found to exist.

The San Simeon Mining Company was the first actual mining company incorporated in the County in 1863. A short time later, a great demand for copper in munitions developed, and the subsequent high prices during the Civil War initiated the opening of several copper mines in the County. During the same period of exploration, rich quicksilver - bearing ores were discovered in the mountains east of San Simeon. This discovery near the Josephine Mine set off a flurry of activity throughout that area. The founding of the Oceanic Mining Company followed in 1874 for the extraction of very rich cinnabar deposits east of Cambria. Although the coal and copper industries folded quickly, a number of quicksilver mines continue to operate.

As with the rest of California, this County also experienced a late 19th century gold rush, although proportionally very minor. A location in the La Panza Range was the object of this hunt to recover the fine gold placer deposits. These workings, however, were never of much economic value to the County, although there was again some activity during the 1930's.

During the 1870's, the second most important mineral in the County's past also came into production, chromite. The richest deposits were found at the mountainous headwaters of Chorro Creek, near San Luis Obispo. Since the market failed in chromite

following World War I, there has only been intermittent activity of this mineral resource. Other past mining activities have included workings of the large bituminous sandstone deposits; the various construction stones, sands and gravels; and the extraction of oil. The principal developed mineral resources of San Luis Obispo County at the present time are: gypsum, clay, natural gas, petroleum, mercury, construction stone, sand, and gravel.

Economic Contributions

The contribution made by mining activities to the total County economy is relatively small. All mining activity accounts for only 1.3 percent of the basic employment in the County, averaging 150 persons over the last five years, and reported payrolls for last year totaled $1.5 million. Additional, but undetermined contributions to the County's economy are also made indirectly by the local provision of rock, sand, and gravel to the construction industry.

Although employment has remained stable over the last five years, mining has been declining in significance during the last ten years, both in its value of production and its contributions to the County's economy. The decline is more noticeable in relation to some resources than others.

Petroleum production has experienced a general decline over the past 20 years, while natural gas output has generally remained stable. The market for these products is good and demand is high, but depletion of reserves has, in some fields, brought a drop in production.

Market and production costs have been factors in the relative inactivity of the mineral industry. Lower prices and higher production costs over the last few decades have forced a number of producers out of business or into partial production and have prevented a number of marginal deposits from being exploited. Evidence dots the County landscape, revealing aborted mining exploitations.

Local demand is the primary factor in the production of sand, gravel, and stone. This activity is directly related to growth trends and construction needs. Production has fluctuated in proportion to the economic activity in the County.

TABLE 2

VALUE OF MINERALS PRODUCED IN
SAN LUIS OBISPO COUNTY 1950-70
(in thousands of dollars)

	Petroleum	Sand & Gravel	Clay	Gem-Stones	Gypsum	Sulfur	Natural Gas	Natural Gas Liquids	Mercury	Manganese	Chromite	Stone	Unapportioned	Total
1950	9003	290	0	0	0	0	100	*	0	0	0	*	1118	10411
51	9453	85	0	0	0	0	127	1101	0	0	0	47	1300	10500
52	8561	199	0	0	*	0	463	*	*	0	*	*	1482	10705
53	10015	189	0	0	*	0	193	*	*	*	734	*	1614	12744
54	9440	387	0	0	*	0	217	*	*	*	898	*	1681	12623
55	8533	353	*	0	*	*	432	1176	*	*	482	*	749	11725
56	7250	646	*	*	*	*	*	*	30	*	719	*	2161	10812
57	7952	738	*	*	*	*	*	*	*	*	1174	736	1552	11416
58	6071	739	*	*	*	0	320	*	*	*	916	971	1948	10730
59	5797	958	*	*	*	0	286	*	0	*	0	1274	1314	9326
60	4228	827	*	2	*	0	248	*	*	0	0	377	1596	8175
61	3782	463	11	2	*	0	248	*	562	0	0	1110	750	6196
62	3601	845	12	1	*	0	230	*	*	0	0	1018	1426	7225
63	3456	720	8	2	*	0	189	*	*	0	0	1553	1058	6451
64	3246	1951	12	0	*	0	210	*	*	0	0	*	1163	8135
65	2551	743	11	0	*	0	211	0	*	0	0	*	2961	6477
66	1979	280	11	0	*	0	194	0	*	0	0	*	2667	5142
67	2658	611	8	0	96	0	167	0	*	0	0	*	2844	6384
68	3262	528	15	0	73	0	234	0	*	0	0	*	1764	5876
69	3671	153	16	0	20	0	338	0	*	0	0	*	1950	6148
1970	4842	392	9	0	23	0	409	0	*	0	0	*	1364	7039

*Unapportioned

MINERAL RESOURCES OF THE COUNTY

Petroleum and Associated Resources

Locally refined products range from oil, gas, and petroleum coke to asphalt and sulphur. The production of petroleum has never been of great significance to the County's economy. Exploratory wells have been drilled in many areas, but the Guadalupe oil field is the only operation producing in quantity, yielding almost 90% of the County's total production.

Union Oil and the Collier Chemical Company, south of Arroyo Grande on the Nipomo Mesa refine and process oil, respectively. Petroleum coke, asphalt, sulfur, and electrodes are the products of these operations. Several storage and transhipment points are located in the County, with Morro Bay and Port San Luis as the ports-of-call. Standard Oil Company at Cayucos receives piped oil from the Central Valley and loads tankers offshore. The Valley-based Kettlemen field is also the source for the natural gas consumed by the P.G.& E. power plant at Morro Bay.

The long term outlook for petroleum production is not bright. The 1970 yield was 1.9 million barrels, but this is approximately half the yearly totals of the early 1950's. Value of production has risen slightly over the last five years, but the limited known reserves could become economically unproductive in the near future. This could change, however, if oil-shale separation methods become economically feasible. Rich fields south of San Luis Obispo could be the object of the extraction process.

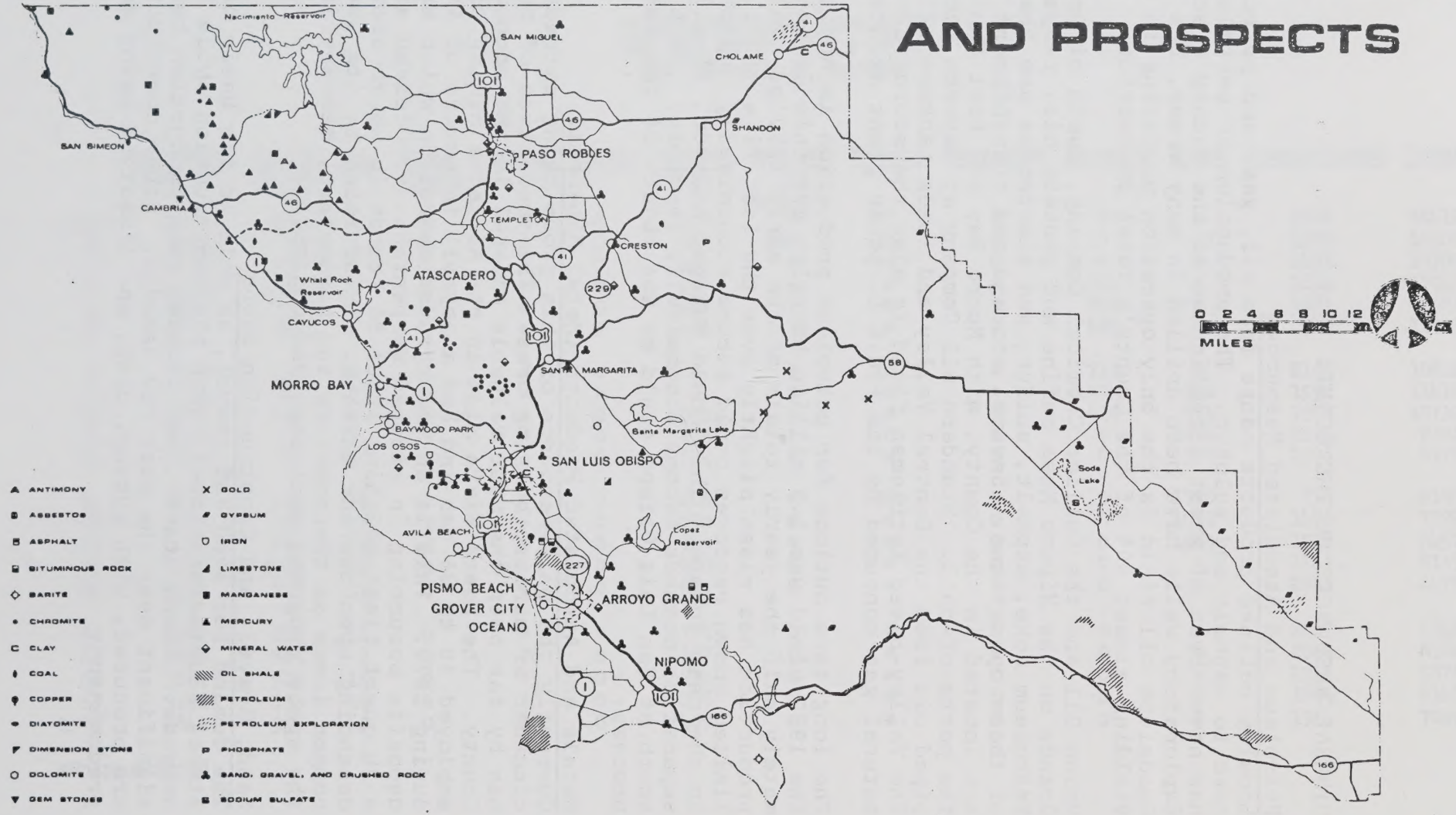
Metals and Associated Products (Metal Minerals)

Currently the only resource of this group being extracted is cinnabar or mercury bearing ores. The production of mercury has by far been the most valuable mineral in the economy of the County. The Buena Vista mine in the Adelaide Mining District employed 30 to 35 men and had a payroll in excess of $400,000 during 1970. This is an underground operation which extracts deposits occurring in altered serpentine. Processed at the site, a 2½ quart flask weighing about 85 pounds is worth around $200, depending upon current markets. In addition to its use in such common items as thermometers and barometers, mercury is used in the space program, medicine, and munitions.

Sand, Gravel, and Construction Stone

The demand for sand and gravel, as well as for basic construction stone, fluctuates closely with the construction cycle and growth demands. Sand, gravel, and crushed rock production has been significant over the past few decades. Other construction stones are produced, with gypsum, clay, and limestone being most predominant.

MINERAL RESOURCE AREAS AND PROSPECTS



There are a number of sites which produce sand, gravel, and crushed rock, most of which are located in various stream channels. The largest commercial quarry is the Kaiser Sand and Gravel Company located near Santa Margarita. A deposit must have a shallow overburden, it must be in large concentrations, and located near market areas, to be economically extracted.

Beach sands and gravel deposits at stream mouths have been exploited since man settled in this County. Several companies are presently operating along the coast, and one extracts very fine beach sands for molding purposes from the Oceano Dunes. Controversy is added to these operations because of periodic large-scale sand removal.

The industrial rocks and building stone cover a broad spectrum of situations. Dimension stone is supplied to suit construction requirements, but unlike gravel, deposits are not required to be close to markets. Employment in quarrying also shows a higher percentage in the basic or export categories. The production of dimension stone has dwindled in recent decades while the use of crushed rock has increased. Use of asphalt concrete in construction has largely been responsible for this trend.

Limestone, limerock, gypsum, and clay are the industrial minerals presently being produced. Available statistics reveal 15,000 tons of gypsum and 7,000 tons of clay extracted during 1970. Limestone production is from a large deposit on Lime Mountain west of Paso Robles. This is largely used in the sugar refining process. Gypsum is presently being extracted from the eastern sections of the County. Brick for use throughout the County is produced by the brick works in San Luis Obispo from local red-burning clays.

Other Minerals

There are a number of mineral deposits which have had commercial importance in the past. The most important of these is chromite. There are a great many inactive mines along the central section of the Santa Lucias, some having substantial deposits, but low market prices have kept them out of production. Other metals which have been extracted in small quantity include gold, copper iron ore, magnesite, and sodium sulfate. Future development of these resources depends upon future demands and marketing availability.

A secondary mineral resource seldom given thought is the mineral water found in the County. There are a great number of mineral springs having both hot and cold water and a wide variety of chemical salts in solution. They occur in various places, but few are actually developed. Several hot springs are utilized as mineral pools or baths, while a few of the cold springs or wells are sources for commercially bottled water. These resources were exploited more in the past than at present, but still they must be considered as a County resource with possible future economic value.

In addition to those minerals exploited in the past and those presently being extracted, there are prospects and possible commercially developable reserves of phosphate and uranium. Several gem stone varieties have been found, including jade, but none have been taken in quantity.

Energy Sources

Development of electrical energy sources is not necessarily related directly to the mineral resources of an area, nor even to the demands for energy within that area. Site selection criteria for power plants are related more directly to sources of fuel or energy and available cooling resources. Distance from markets is considered only in relation to the economic level of production; the lower the cost of production, the greater distance the source may be from its major consumer.

Because it uses a unique fuel, nuclear power plants have fewer site locational restraints. Their multiple and long-range impacts upon air, water, and land resources, however, are of critical concern to local agencies. Distance from market is an additional locational factor which the producer considers.

Conventional fuel generation plants may be situated because of local fuel resources, but not necessarily if other locational factors offer greater advantages. Neither the nuclear fuel plant, nor the conventional fuel plant are presently dependent upon the local mineral resources. The isolated coastal environment and position to the companies system seemed to be the prime reasons for placement here. The P.G.& E. power plant in Morro Bay consumes natural gas and fuel oil, none from within the County, and little of the total power generated remains within the County. As with the Diablo Nuclear Plant, isolation and water resources were the principal requirements.

While demand for electrical power in the County will probably continue to increase, it is doubtful that it will ever equal the output from the two plants. Consumption of energy resources, however, is rising faster than actual population growth. Little doubt remains as to the potentials for energy shortages in the very

near future. Consumer demands will increase the possibilities for expansion or extension of present sources within this County. Careful consideration should be given to these factors as well as the possible environmental impact.

CONSERVATION PROBLEMS

Consideration of surface mining in relation to comprehensive land use planning involves conflicting objectives. Sound planning seeks to : (1) make available mineral resources for industrial use; (2) conserve minerals so that they can contribute to the local economy; (3) maintain low costs for mined construction materials; (4) protect residential areas from noise, dust, vibration, traffic, or esthetic impact; (5) reclaim worked-out mines for new land use that will fit a comprehensive plan; and (6) avoid excessive damage to environmental and scenic resources.

Land Disruption

A significant conflict which arises through the need for mineral extraction is competition between land uses, both before and after the fact. Prior to actual need for extraction of the mineral, there is the possibility of pre-emption of the site by other land uses. This suggests the need to define mineral preserves for selected resources at desirable locations.

During the extraction process, there can be major problems created through subsidence at the site, landslides, waste disposal, and loss of scenic values. Definitive controls must be placed upon mining operations to reduce the impact of these disruptions.

After the mineral deposit has been exhausted, there remain the major disruptions created by the mining operations; the pit, mine shafts, or abandoned wells; the slag heaps, or mounds of overburden; and the large barren sterile area around the site. Prevention of these disruptions of the land and reversion of the land to a useful state requires reclamation measures set as conditions for mining approval.

Land Use Conflicts

As with all types of industrial endeavors, conflicts with adjacent land uses may at times create serious problems for mining activities. Some of the difficulties originate from the nature of the extraction process, which may involve dust, noise, vibration, or odor problems for neighboring areas. Conflicts also arise if a source of air or water pollution exists as a result of the extraction process. This is particularly true of offshore drilling operations. Pollution in any form is a major issue which can create far-reaching public reaction.

A new means of response available at all levels of government which might apply to mineral extraction derive from the Environmental Quality Acts. Locally adopted Environmental Impact Procedures enable government to require an Environmental Impact Report prior to approval of any mineral extraction project. Used properly, this could help minimize future environmental conflicts and aid in the conservation of all our resources.

PRESENT GOVERNMENT RESPONSE

State and Federal

All levels of government perform regulatory functions in regard to mining operation. The nature of the regulation includes such items as land use, taxation, employee safety, groundwater protection, and transportation. In addition to regulation, government also provides an advisory service, and acts as a clearinghouse for statistics and information. At the Federal level the U.S. Bureau of Mines performs these services; and at the State level it is the State Division of Mines and Geology.

Standards and regulations are applied by the State Division of Industrial Safety, the Public Utilities Commission, and the State Division of Oil and Gas. Administration of public lands and regulation of mining activities on those lands is the responsibility of the U.S. Bureau of Land Management and the U.S. Forest Service.

County Regulation

One of the means a county has of regulating mining practices and petroleum extractions is through the use of zoning regulations. Presently, a conditional use permit is required in the western half of the County, while only a notice of intent is required in all but a few small areas of the eastern half. As yet there are no specific minerals zones or mining preserves, and the County has little control over non-conforming uses. There are also no adopted standards to follow in the application of conditions at the time a use permit is issued.

The industrial processing of mineral resources and construction materials is regulated a little more tightly by the zoning ordinances. Regardless of the use involved, the conditional use process may control noise, vibration, setbacks, and esthetic or visual impacts, among other possible conditions.

Air pollution regulations are enforced by the County Air Pollution Control Board. This agency administers the State Air Quality Standards, monitors dust, and smoke, and requires the installation of preventative systems. Although existing local regulations appear adequate, they are presently not adequately enforced.

Through application of building codes, the County is able to apply its own standards and normal State requirements. Certain local alterations in these codes could be made in relation to conserving natural resources. Added insulation, for example, would prevent heat loss and conserve energy resources.

City Regulation

Control of the extraction of mineral resources within the City's boundaries may be administered by agencies similar to the County. These would include the Planning Department, and the Department of Public Works. As yet, there are no major extractive industries within the City's planning area. Land filling and grading of hills and slopes for soil or building sites is normally administered by the Planning and Engineering Departments.

SUMMARY AND RECOMMENDATIONS

Mineral and energy resources are important not only to San Luis Obispo, but to the entire County, and a number of Conservation problems and issues are involved with local resources. First, there are the problems caused by old abandoned mines, which mar the scenery and result in pollution. Second, there are the issues related to mines now in operation, including pollution at the site, as well as noise and dust from trucks on access roads. The question of allowing new mines and quarries is a basic issue currently troubling the County. Other conservation issues include offshore oil drilling and protection of rare minerals, and energy consumption.

Most of this chapter discussed problems and issues not directly related to San Luis Obispo. The discussion was very similar to that in the County's preliminary Conservation Element. However, indirect effects to our community may result from improper conservation practices, and for this reason, mineral and energy resource conservation problems must be recognized by the City as well as all communities in the County.

1. The City supports County efforts to:

    a. Insure that adverse impacts as a result of quarrying, mining, or drilling operations are minimized or negated.

    b. Restore abandoned sites.

    c. Insure that any operations which would release toxic and offensive materials into the air and water are prohibited.

    d. Insure that quarrying, mining, or drilling operations are not allowed in areas of high environmental quality or designated scenic areas.

    e. Enforce mineral regulations

    f. Actively pursue the implementation of Environmental Impact Procedures wherever there may be conflicts involved in the exploitation of mineral and energy resources.

2. A leadership role should be adopted by the County and City in regard to energy conservation. Not only should action programs be adopted by all agencies in reducing consumption, but new ordinances and incentives should be adopted in regulating consumption.

3. As previously noted in Chapter 3, individual efforts to conserve energy resources are needed. In addition, consideration should be given to amending the Building Code to require the use of insulation in buildings constructed for human occupancy to insure a more efficient use of energy resources, and the subsequent reduction in emissions resulting from energy consumption.

CHAPTER 7

HISTORIC PRESERVATION

Today, we are aware that communities reveal much about their character and values in the way they protect -- or abuse -- places of historic significance. San Luis Obispo has buildings, sites, and neighborhoods of particular significance. Some are locations of historic events, some are associated with notable persons, and others are distinctive and representative of architectural design, unique characteristics and simple curiosity. Such buildings and areas contribute to the variety, vitality and character of the City by enriching the daily experience of people. They form an important part of our historic and cultural heritage which, if lost, cannot be replaced. By retaining examples from earlier periods, we are in a better position to judge our contemporary values and our progress. The values of the past provide a foundation and reinforcement for the values of today.

This chapter will discuss historic preservation problems and develop policies as a basis for future planning. Before considering these problems, it is desirable to briefly discuss the historical background not only of the City, but of the entire County. Our history developed in a much broader context than our present day urban area alone.

HISTORY OF ARCHITECTURAL STYLES

The appearance or style of architecture in general is strongly influenced by climate, geography, natural resources and, of great importance, the social and political temper of the times. The earliest influence to early settlers in San Luis Obispo County was religion and the "Spanish Old World".

The first structures, as might be expected, were of minor architectural consequence. They were crude shelters .... "A house of wooden poles, divided into two rooms, and plastered with mud over grass and roofed in grass", of which none exist today. Later, instead of poles and rushes, more permanent structures were built with adobe used for walls. Sun-dried adobe can be said to have been the principal building material between 1772 and 1850, known architecturally as 'Early Californian'. Adobe buildings were constructed of bricks made from a mixture of mud and straw. Adobes were protected from rain by plaster and overhanging roofs. Walls were thick (18" - 9' in some cases), making them cool in summer and warm in the winter. Some of the more expensive adobes had two stories with wooden balconies and tile roofs.

Wood was used as a construction material more after 1825, but a majority of the wood had to be transported from San Francisco and it was quite expensive. Yankees or other newcomers brought architectural ideas patterned after those in their homeland. Wooden "Yankee frame houses", simple and functional, began to dot the landscape. They were boxlike in shape and had long front porches, reminiscent of the adobes. Detail work, if any, was on the front porch railing, fences, and shutters. These buildings were of a makeshift nature (clapboard) and few of them remain today. This era in architecture can best be described as 'Pioneer' (1850-1880) (Gold Rush to Railroad Era).

The great immigration to California and San Luis Obispo County late in the 19th Century brought with it a more cosmopolitan style. This marked the end of California regional architecture with the oncoming of varied European styles. The structures, built of wood, were resplendent with towers, gables, dormers, spires and ornate carvings. Typical of New England style homes, they were invariably painted white with green shutters. This merging of culture and architectural styles is known as the 'American Colonial Revival' (or California Renaissance, locally) (1880-1910). Heavy fire losses, especially in the City of San Luis Obispo, encouraged the large scale production of bricks. In 1886, wood buildings were banned in commercial areas of the City.

At the turn of the century, counter movements were initiated by the "Mission Revivalists" and the "Spanish Revivalists". The stucco "Spanish or California bungalow" and an attempt to return back to the original Colonial Spanish architecture are products of this period. This style was also intermingled with "neoclassism" (revival of classical forms) and "electism" (using of styles from established earlier styles). These styles continued to be used in San Luis Obispo County until 1940. From 1930-1950 many efficiency or "contemporary" houses and buildings were constructed in the County. The houses became smaller as mass production evolved and tradition was overlooked in the face of speculative building projects.

This brings current our San Luis Obispo history of architecture, with three basic styles evolving -- the 'builders' house, efficiency apartments, and the mobile home. The lack of student housing, immigration, property speculation, and rising costs have been symptomatic to current building styles. It causes us to reflect back upon the transient quality of our forerunners (in those earlier 'Pioneer'days). During the past two decades, San Luis Obispo County has seen many new changes as well as a marked increase in population. Many historical sites have been destroyed and many now are threatened by expansion. Since there is no plan or priority list for preserving most historical sites, it is becomming more important that the people preserve their cultural heritage before it is too late.

PROBLEMS OF HISTORIC PRESERVATION

As it has evolved, the historic preservation movement has developed a variety of approaches. Depending on local circumstances, any number of these could apply. Effective conservation of historic resources is primarily a local activity. Any effort to establish a realistic historic preservation program must recognize objectives and a number of cultural and social, economic, and planning problems.

Tradition and Need

Much of our old architecture may be destroyed if it cannot be made functional. In almost every community, groups or whole streets of fine houses can be found slowly decaying because the original owners are long since dead and gone and few individuals today can afford to maintain them or would if they could. These buildings often have architectural merit, or at least express the taste of their era and should remain as living examples of the past.

The character of a neighborhood is also an important consideration. The character is something that one senses rather than consciously sees. It can be felt as pleasant openess or a well-organized closeness; a variety of building placements and types; good architectural design; and an established landscape. A neighborhood that possesses a good character is likely to mellow and improve with age given adequate maintenance and sufficient property owner interest.

Social and Cultural Issues

Identification of the cultural assets and community values to be preserved is an important first step toward historical preservation. Each community undertaking a preservation program must determine the nature and extent of its unique heritage. Historic and esthetic value to the community must be ascertained by respected persons with the special knowledge and technical competence to make such an evaluation. Their judgment must be backed up by acceptance and endorsement in public policy by the local governing body.

Economic Issues

Once the physical heritage has been identified and defined, economic consequences must be evaluated. Economic benefits will vary with the extent of historic and cultural resources available within the community. Obviously, there can be economic benefits to any community undertaking a realistic and thorough conservation effort.

For the most part, private funds are used to restore old structures. Functional private historic restoration stimulates work for local building trades and provides usable space. An important side effect is creating an area of prestige addresses for businesses and residences, which, in turn, stimulates further community improvement. Another potential economic benefit is the stimulation of tourist and perhaps convention trade.

Historical preservation projects places a heavy burden upon the owners, who are often pressured to expend considerably for maintaining the quality of inefficient buildings. Here, or elsewhere, we need recognition in our tax structure and zoning of these problems.

Planning Problems

Noteworthy buildings cannot be considered in isolation. Economically feasible reuses must be found. The old must be related to the new, not only in architectural character, but also in their compatibility to uses of adjacent property. A basic concern is how the preservation effort relates to community planning objectives and to broader issues of community appearance. Many old buildings are found near city center areas, threatened by downtown expansion, highway programs, or decay. Conservation must be considered as a part of overall development policy -- this link to planning is essential to its success. Buildings worth saving must be put to productive use, not withdrawn from the mainstream of community life for a few to appreciate as isolated objects of art.

Other important problems include the necessity for making a comprehensive inventory of existing architectural and historic resources. Too often our educational and preservation efforts are undertaken too late after community design and improvement decisions are made.

PRESENT GOVERNMENT RESPONSE

Several State and Federal agencies are involved in a program of historic preservation.

In 1916, the National Park Service was created and charged with the protection of National historic resources. The Historic Sites Act of 1935 and the Historic Preservation Act of 1966 greatly broadened these responsibilities. These Acts provide different programs such as an Historic American Building Survey and the National Historic Landmark Program. Criteria for preservation of buildings and sites that are nationally significant are inherent in the law.

The need for effective local historic preservation planning and programs is apparent. Private organizations have attempted to fill the void, but lack the resources to be effective. Only a few individual programs have been created for preserving historic sites. Without detracting in any way from the valuable efforts of private organizations (County Historical Society), local government agencies should be developing and coordinating a program for historic conservation. Notable structures and places are rooted in local communities, and relatively few are of State or National significance from either an architectural or an historic point of view. Also, most of the tools to accomplish

preservation must be either developed or applied locally. Therefore, historic conservation can properly be viewed as a matter of local public concern and policy within the context of an overall planning perspective.

PROGRAM FOR HISTORIC PRESERVATION

Planning

After the comprehensive inventory and area evaluations are completed, the community will have a much clearer picture of its preservation needs. These needs must be weighed against the resources available or potentially available to implement an appropriate conservation program. If certain resources are not currently available, there should also be an assessment of actions required to make them available (for example, changes in legislation). Following the inventory and evaluation phase, the program should be implemented based upon a set of objectives and standards developed jointly by the County and City with advisory committee assistance.

Various tools are available to a municipality for carrying out a program to conserve its historic and cultural resources. Some of those to be discussed are alternative approaches toward implementation; others can be complementary, as in the case where a community elects to combine the techniques of historic district zoning, urban renewal, and direct purchase.

Land Use Measures

Specific land use implementation tools include General Plan revisions, historic district zoning, scenic easements, land acquisition, and urban renewal.

If properly applied, conventional zoning can offer some protection to historic areas. Matters normally covered in the Zoning Ordinance (such as conditional uses, variances, density, building height, lot coverage, etc.) do have an influence on the character of an area. Conventional zoning may not prevent the present owner, or a subsequent owner, from making alterations or additions which could destroy the architectural integrity of the structure. Architectural and Building Code control provisions are inadequate. To overcome this problem, special historic district regulations should be added to Zoning Ordinances.

Historic districts should be identified on the basis of a comprehensive survey of historic and architectural resources. A major feature of such districts is the establishment of particular architectural controls and codes and the creation of a review board to administer them. The objective is to maintain the distinctive character of the district and/or structure. Review boards should have the power to delay any significant change in the structure and to allow time for alternatives to the change to be developed.

An alternative approach ("framework approach") can be applied to cities with a scarce and scattered historical or architectural configuration. Historic zoning for an individual may protect the architectural integrity of the building itself, but it cannot protect the structure and its premises from adverse environmental influences. It is likely, therefore, that proposals for designating individual structures as historic districts will also include recommendations for the creation of transitional areas around them. This offers the flexibility to apply regulations for specific areas rather than blanket regulations over broad areas.

Special Commissions

Another device for controls over historic structures and places is the creation of a special commission that operates outside the context of the Zoning Ordinance. Functions of such commissions are similar to the architectural review boards discussed previously, but powers vary with the locality. The commissions' scope varies from an advisory board to the Planning Commission to appointed commissions that hold public hearings to designate structures and areas. These commissions have complete authority to protect buildings. Appeals can be made directly to the governing body in cases of dispute.

Scenic Easements

Depending on local program objectives,the scenic easement may be another tool for public protection of the historic and architectural integrity. It is a device that allows preservation of the public interest without substantially affecting the use of the property. The purpose is to prevent exterior alterations detrimental to the original architectural design. A public body may acquire, through purchase, condemnation, or perhaps donation, an easement over the facade of the building which would prevent the owner from altering the exterior appearance of the building without approval.

The owner and his successors would retain all rights to the property except the right to modify its appearance. Except in the rare case of donation, this approach provides compensation to the owner in return for the easement. Because of limited experience thus far, however, it may prove difficult to determine how much the right to change the appearance of the property is worth in relation to fair market value. An advantage of the easement approach is that the building continues in productive private use. A disadvantage is that while the architectural integrity of the single important structure is protected in this manner, there is no protection against detrimental environmental influences from adjacent properties unless there are easements covering those properties as well.

Tax Policies

Frequently some form of tax incentive is suggested as a possible device to encourage rehabilitation and preservation. Incentives could take several forms; assessment or rate reduction, assessment or rate freeze, temporary exemption, refund, and complete exemption among others. The basic idea here is to encourage the owner to restore and preserve his building by offsetting some of his expenses with some type of tax relief. Any tax incentive proposal must adhere to law, be realistic, and be linked to a strong case that is clearly in the public interest to insure the preservation and proper maintenance of particularly significant structures. Appropriate safeguards must be included.

Public Acquisition

A final public option to preserve selected important buildings and sites is direct acquisition either by purchase or by condemnation. This should be considered when acquisition of a structure is the only chance remaining to save a truly outstanding building. Discussion on public acquisition must be based not only on the architectural and historic merit of the structure, but also on the potential for productive use.

Acquisition for Private Use

Private sources can assist by finding appropriate reuses for historic structures. There are numerous examples where private organizations or individuals have purchased and restored buildings for their own use. Possible uses are club headquarters, chamber of commerce, fraternities and sororities, professional offices, home occupation uses, etc.

Revolving Funds

Some private organizations raise funds to purchase and restore historic structures. They maintain a revolving fund for these philanthropic purposes. Once acquired, they rent or resell (usually with deed restrictions to protect the exterior appearance of the structure), with the proceeds returned to the fund to be applied to other structures.

Private Recognition

A final type of private effort gets into the realm of friendly persuasion. Frequently, local historical associations will try to educate owners about the historical and architectural values of the structure. The association places a distinctive marker on the structure to signify its importance if the owner agrees to a certain standard of maintenance. If the owner fails to meet this standard, the plaque is removed. This is more an educational technique than an effective tool to accomplish preservation objectives.

Education

A simple, yet persuasive, view states that education is a fundamental instrument in any program to increase appreciation of the beautiful things. We often turn to education because appreciation and conservation of beauty can be taught and learned.

Public education is a basic component in any successful conservation program. A primary objective is the stimulation of public interest in, and concern for, the maintenance and enhancement of the community's historic and architectural heritage. Various media can be used to publicize the results of the comprehensive inventory and evaluation. Documentation and interpretation is a means of generating additional community understanding and support for the conservation program.

SUMMARY AND RECOMMENDATIONS

This section has been concerned with the more significant historic preservation problems locally; specifically, background and historical preservation, present government response, and programs and policies for historic preservation. Historic preservation is a matter of great importance in San Luis Obispo, and the following recommendations are designed to achieve a much needed planning and preservation program.

1. The City should adopt the policy to: preserve sites identified with the history of the City, County, State, and the Nation, to preserve buildings and groups of buildings of unique or characteristic architecture, and to preserve smaller sites and single buildings that are symbolic of the many social and ethnic pioneers.

2. The City should develop a detailed inventory and comprehensive plan for the preservation of buildings, areas, and sites of historic or architectural importance, including a listing by relative priority.

3. The City and County should cooperate in establishing an official advisory board with the power to evaluate and maintain the historical buildings survey and its priorities. The committee should recommend means to preserve sites threatened by demolition and/or alteration. The advisory body should formulate a program with incentives for those owners who participate in the preservation program.

4. Any designated historic sites of importance should not be penalized by oppresive laws as a result of restoration. A historic preserve and/or planning zone status for selected sites should be initiated, to provide appropriate standards, code requirements, and owner incentives.

5. County and City agencies should cooperate and coordinate activities with preservation groups, citizen groups, archaeological, historical, and other scientific organizations in historical preservation activities.

6. Incentives to development groups should be offered to prevent premature destruction of sites and to encourage the productive use of all buildings preserved, preferably through private ownership.

7. Public information programs should provide optimum use of private and public resources to provide comprehensive data on proper methods and techniques of restoration and rehabilitation, including sources of funding assistance.

8. The restoration of historic buildings or sites should seek the greatest degree of authenticity practicable. Lists of appropriate experts should be provided and requirements should be established that experts be consulted.

CHAPTER 8

ESTHETIC CONSERVATION

San Luis Obispo, primarily because of its unique physical setting, has a rare and esthetically pleasing environment. It is an urban environment with the amenities modern man has become accustomed to, but also one in which a dramatic backdrop of invaluable open space is visually available to everyone, providing a portion of "both worlds".

All areas of conservation are important in building and maintaining a healthy and viable community, but this chapter will focus on the somewhat vague subject of esthetic conservation. It is vague in that the logical relation between esthetic reactions and moral, economic, intellectual, and personal concepts is intricate and generally misleading. What distinguishes esthetic judgment or reaction from others, is that it alone involves the recognition or awareness of beauty and ugliness. The rightness or wrongness of a given situation is essentially an individual assessment belonging to individual sets of criteria.

Without attempting to discount the importance of a clearly defined framework when formulating this chapter on esthetic conservation, it is not within the scope of this study to consider the philosophical issues involved in deriving a mutually-adequate defination of "esthetics". Instead, it is the intent of this study that any disparities will be reconciled by considering those major areas of esthetic conservation which generally appear to be both significant and clear.

Several conservation concerns are grouped together under esthetic conservation. Inculuded are noise pollution, odor pollution, and visual pollution, all of which may have adverse effects on man and the environment. In extreme forms, noise and odors can be physically harmful, as well as the damage to mental health which can result from a continually disordered environment. These forms of pollution often have detrimental effects on wildlife, and from an economic standpoint, property values can be damaged or ruined by unpleasant noises, odors, and eyesores.

Although not inclusive, the above concerns represent the primary reasons for undertaking an esthetic conservation study. The following pages present the three major areas of this study: noise, odor, and visual pollution. In addition to discussing significant problems, each section will include recommendations to reduce or prevent these forms of pollution.

NOISE POLLUTION

With the growth of urbanization and its accompanying increase in population, has been a steadily rising noise level. Man, as well as wildlife, is becoming increasingly exposed to noise from countless sources. The major sources are those motor vehicles which combine to make the surface transportation system. Although aircraft noise is not yet a critical problem locally, it is one of the most pressing conservation problems in nearby metropolitan areas. Construction activity, quarrying, and certain industrial and commercial establishments have also been the source of substantial noise pollution.

Possible Effects of Excessive Noise Levels

In considering the possibility of adverse effects resulting from excessive noise levels, it is desirable to emphasize that San Luis Obispo is not currently confronted with any critical situations. It has, however, been evidenced in a number of large metropolitan areas that the consequences of noise pollution can be quite serious.

Noise-induced hearing loss is one of the primary physiological effects of excessive noise levels, and it is usually associated with continuous or semi-continuous exposure to industrial situations. Aircraft noise, because of its intermittent nature, is not usually associated with such hearing loss, but indirect effects may result. The primary indirect effect is disruption of sleep. Although sleep may not be completely disrupted, only moderate noise levels are sufficient to remove the sleeper to more shallow levels of sleep, with a subsequent decline in health because of insufficient rest.

Also associated with excessive noise levels are psychological effects. Such effects take the form of increased irritation and stress, particularly following exposure to intermittent noise such as that produced by air traffic and loud surface transportation activity. Studies on human response to such noises have shown that heart rates and blood pressure may increase, and that arteries have a tendency to constrict.

Apart from possible adverse physiological or psychological effects, it is worthwhile to consider some of the secondary issues. Among these are esthetic concerns such as a reduction in the quality of life which may result from high noise levels. Adequate insulation may insure acceptable noise levels inside residential and other structures, but outside activities may be substantially inhibited. Another effect may be the possible negative impact on property values. An increase in industrial or aircraft activity in concentrated areas can cause a relative decrease in property values in the immediate surrounding area. Although on a considerably different scale, this has been observed in areas surrounding Los Angeles International Airport.

Noise Pollution Problems

Despite increasing present and potential problems, little or no attention has been paid to noise as a pollutant in the City. Planning efforts have not adequately considered this subject. In addition, land use regulations have not been used to their best advantage in preventing residential development near freeways, factories, airports, railroads and other noise sources.

The use of off-road motor vehicles of various types is increasingly becoming a problem where noise pollution is concerned, as well as other areas of conservation. There has not been adequate efforts to establish regulations which will best serve the public.

PRESENT GOVERNMENT RESPONSE

The City is in need of a planned program of noise pollution control. With few exceptions, there are no regulations which deal adequately with excessive noise levels.

The State Vehicle Code limits vehicle noise levels on highways, but violations are widespread because of enforcement difficulty. Local ordinances prohibit excessive noise levels in residential, industrial, commercial and other areas. In addition, construction activities are regulated on a limited basis by restricting the hours of operation, but no limits exist on peak noise levels during hours of operation.

Funds have been designated for a Noise Element of the County's General Plan, and the City recognizes its responsibility to undertake such a study as required by State mandate, however these reports are not yet underway. The Airport Land Use Commission is currently studying alternatives to minimize noise hazards resulting from incompatible land use around public airports.

SUMMARY AND RECOMMENDATIONS

Noise pollution is an issue which needs attention and action before a critical situation arises. We are not currently realizing any serious difficulties in this area and problems should not arise, provided that preventive steps are taken.

1. A complete Noise Element of the General Plan should be completed and adopted as soon as possible.

2. Existing regulations should be enforced to control development of incompatible uses around noise sources. In addition, consideration should be given to amending building codes to require the use of insulating materials in new construction near noise generators.

3. Noise generators should have the responsibility to meet performance standards, and new uses should develop amenities to further minimize noise pollution.

4. Off-road vehicle sites should be properly located, patrolled, and regulated, with an increase in fees if necessary to pay the costs of enforcement.

5. The City should seek cooperation between County and other government agencies to enforce noise regulations.

ODOR POLLUTION

Odor pollution is quite a separate and fragile issue in conservation. It is closely associated with the general classification termed "air pollution" in that both usually share common sources; however, a notable dissimilarity exists in methods of control. Those gases and particulates which are considered air pollutants generally possess finite characteristics that can be measured and therefore referred specifically to in regulations or control methods. Conversely, odors do not generally display such descriptive qualities. Like other areas of esthetic conservation, the determination of a critical situation is, to a considerable extent, based on individual sensory analysis and it is difficult to define levels, above which, odors are excessively high.

Despite the ambiguous nature of odor pollution conservation, it deserves greater consideration than has previously been given. It is clear that odors often are a nuisance to society and, though not altogether clear, can adversely effect human health, plants and wildlife as well as livestock, and have additional economic implications. The following pages will discuss some of the problem areas, and present recommendations to curb or preclude odor problems.

Agricultural Operations

Some agricultural operations contribute substantially to odor pollution. Feedlots, large-scale poultry farms, and several other agricultural operations are the major sources of such pollution, and for a number of somewhat avoidable reasons. Perhaps chief among these reasons is the problem of location. Location of these operations may be decided by individual landowners without proper consideration of prevailing winds, adjoining landowners, and nearby residents.

Additional problems result from improperly maintained agricultural operations. Not infrequently, animal wastes are allowed to build up. The impact of this concern in only intensified through improper drainage.

Industrial Operations

Industrial activity is frequently responsible for unpleasant odors. Emissions into the atmosphere contribute the majority of these odors, but effluent discharged into waste waters intensifies the problem.

Another major source of odor pollution is the public sewage treatment plant. Public agencies have not given adequate consideration to the location and operation of sewage treatment plants.

Motor Vehicle Emissions

Internal combustion engines add significantly to odor pollution. Diesel engines create particularly unpleasant odors although the only noxious emission is nitrogen oxide. Gasoline engines add substantial odors through exhaust, crankcase ventilation, and fuel tank and carburetor evaporation losses. Although motor vehicle emissions were covered much more thoroughly in the air resources chapter, their significance as an odor pollution problem should not be discounted.

Control Problems

As previously mentioned, control of odor pollution is difficult because of inadequate measures and standards. There are few current regulations which can deal with problems in this area. There is a nuisance ordinance which requires individual complaints to initiate corrective action, but without clearly defined methods of evaluation, the courts find considerable difficulty in making uniform decisions. The County and City zoning ordinances has a similar requirement with much the same inherent control problems.

SUMMARY AND RECOMMENDATIONS

Unpleasant odors are being released into the atmosphere daily from installations of various kinds in and around San Luis Obispo; yet this area of conservation has received less attention than perhaps any other. This section has attemped to indicate the need for greater consideration by discussing these various sources. It is now necessary to examine methods to minimize or prevent odor pollution problems.

1. Continued investigation into scientific methods of monitoring unpleasant odors are needed. Although the subjective methods of human sensory analysis are somewhat reliable, objective means can provide documentation to better facilitate regulations.

2. Agricultural odor-causing operations should be regulated to insure that proper maintenance practices will be followed. Locational requirements should be established to insure that new feedlots and hog pens, turkey and chicken ranches, and associated facilities are located away from habitation or potential habitation which might be adversely effected.

3. Current regulations governing industrial activities should be expanded with more restrictive or clearly defined requirements for odor pollution control. New industries which will pollute the atmosphere with odors or chemicals should be prohibited.

4. The location and operation of sewage treatment plants should be strictly controlled. Existing sewerage plants should be adequately landscaped and screened from residential areas.

5. Further efforts should be made to reduce motor vehicle emissions, and local support of strong measures to curb pollution should be transmitted to the proper authorities.

VISUAL POLLUTION

Unlike many forms of environmental pollution, it is often difficult to determine just what is visual pollution. What a certain person considers an eyesore may be eye-pleasing to others. Inevitably, visual pollution is determined by the values of the dominant groups in society, and the definition may change from place to place or year to year. Furthermore, many displeasing sights on our landscape are merely out of place, and would not be considered unsightly if they were better located. It is important, then, to be cautious in acting as an absolute judge in defining visual pollution.

Most would likely agree, however, that certain features of our landscape are visual pollution by any definition. Included would be unscreened junkyards, agglomerations of overhead wires, dumps, and litter along highways. Other features such as billboards, large signs, quarries, and other major landscape disruption would also qualify as visual pollution in most cases.

A more hazy area of visual pollution involves poor urban design. The very structure of our urban environment, at the two extremes of total chaos and complete monotony, can be considered as visual pollution. The lack of good urban design in tract subdivisions, mobile home parks, strip commercial development, large parking lots, and freeways can be considered visually damaging to the City's landscape.

The City's basic goal regarding conservation of our visual environment, then, should be to encourage diversity within an overall harmony. Recognized forms of visual pollution should be confined to certain areas where there is no conflict with natural scenery, or eliminated entirely in some cases. In the quest for visual excellence in our landscape, however, excessive restrictions which would lead to monotony and deadening conformity should be avoided.

Billboards

The nuisance of billboards along scenic sections of our highways has long been recognized by the general public. The major problem lies with existing billboards along rural portions of Highway 101 and other routes. Although County ordinances require the removal of non-conforming billboards, which includes most of the signs in rural areas, these amortization laws have not been implemented. State and Federal laws have been passed to acquire non-conforming billboards along State highways. The County and City zoning ordinances permit new billboards only in commercial and industrial districts and under strict criteria.

On-Site Signs

The large signs advertising gas stations, motels, and other commercial facilities are a familiar feature in San Luis Obispo; often including neon and fluorescent lighting. These signs help to orient travelers and shoppers, but the signs can damage scenic values. In addition, signs can distract nearby residents and sometimes create traffic hazards.

Overhead Utilities

The maze of telephone wires, creosote poles, and power lines along city streets and across rural areas of the County are an annoying form of visual pollution. Coupled with the overhead disorder is the profusion of television aerials on rooftops. An isolated line or aerial in rural areas is usually not offensive, but the jumble of wires and poles necessary in urban areas is a major problem. Regulations now require underground utilities for most subdivisions in the County and City, but lot splits and some other forms of development do not have to meet this standard. Although efforts have been made to place existing lines underground in certain locations, no overall effort has been made to relieve this form of pollution.

Abandoned Vehicles

Over two thousand abandoned cars and trucks, scattered across the County, were discovered in a recent survey. Although new regulations make it easier for owners to remove these wrecks from their property, the process of cleaning up these eyesores will probably be slow and tedious unless a concerted effort is made to eliminate this type of visual pollution.

Litter

Trash along roadsides is one of the most obvious forms of visual pollution. While the litter along main highways is an annoyance, a more serious problem exists along side roads, where thoughtless residents have dumped considerable amounts of trash. County and City rules now fobid littering along public roads, but enforcement is difficult.

Dilapidated Buildings

Frequent complaints are made about abandoned or dilapidated buildings which pose fire and health hazards. Staff to investigate these problems is very limited. In some cases, County and City zoning regulations discourage any renovation of old non-conforming uses. Also, property owners are generally penalized through higher tax rates for restoring such buildings.

Large Parking Lots

In urban areas, the sprawling parking areas aroung shopping centers and discount stores are another source of visual pollution. Landscaping to relieve the bleak appearance of these lots is sometimes inadequate even though the City's zoning ordinance require that unimproved portions of lots be landscaped or maintained in an orderly state.

Urban Design

In spite of the proliferation of zoning and building regulations, only limited progress has been made toward good urban design. In fact, traditional zoning regulations sometimes discourage creative design by specifying uniform setbacks, bulk, and height rules, leading to the familiar monotony of tract subdivisions. Present regulations usually are limited to safety and engineering requirements, without considering how a project relates visually to its surroundings, and architectural review procedures have generally been very limited. Although the County, City, and other public agencies should set a precedent, public building design has often been no better in visual quality than most private construction.

PRESENT GOVERNMENT RESPONSE

State and Federal laws have been passed to eliminate billboards along major highways. The Beautification Act represents perhaps the greatest effort in this area, and the State Division of Highways has undertaken numerous efforts to screen junkyards along major highways.

Most County zoning districts do not allow new billboards along highways, and ordinances require the removal of non-conforming billboards. These ordinances include most of the signs in rural areas, but these laws have not been adequately enforced. The City also has ordinances restricting billboards, but they are allowed in certain situations.

The County Code requires all utilities to be supplied underground in all new subdivisions, however, lot splits and some other forms of development do not have to meet this standard. The City of San Luis Obispo has similar ordinances, and where necessary, underground utility districts can be established where health and safety standards indicate such need.

Additional local government regulations touch on a number of related areas regarding visual pollution. The City's General Plan emphasizes urban beautification through various means. Recent regulations make it easier for owners to remove abandoned vehicles from their property, and littering along public roads is forbidden, although enforcement has proven to be quite difficult. The renovation of dilapidated buildings has been discouraged by zoning regulations, as well as currect tax rate structures.

SUMMARY AND RECOMMENDATIONS

Visual pollution is perhaps in greater need of attention than any other area of esthetic conservation, primarily because it commands greater public attention and comprises the greatest impact upon our senses. This section has considered the more pressing problems related to visual pollution, and the following recommendations are designed to deal with these problems.

1. Current programs for billboard removal should be given a higher priority. Greater cooperation with County, State and Federal agencies is needed to accomplish this worthwhile endeavor. The legitimate need of motorists for tourist information should be met by alternate methods such as a system of roadside informational signs. These signs should be constructed of indigenous materials reflecting the environment and the City's heritage.

2. While large signs can serve a useful purpose to identify uses and add a degree of visual excitement to city driving, restrictive standards for on-site signs should be established for quality, quantity, and size.

3. Underground utilities should be required of all development within urban reserve boundaries, and all existing areas with overhead lines should be encouraged to be undergrounded through special districts. Continued expenditure of public utility revenues into underground districts in critical areas should be programmed by the undergrounding committee. Government agencies should set an example by insuring that utilities serving public properties are relocated underground.

4. Utility companies should prepare long-range corridor plans for service lines with the cooperation of local groups. New transmission lines which appear to be visually damaging should be fully justified and questioned before approval is allowed. In addition, access roads and right-of-way clearing should be kept to a minimum where new installation or repair of existing installations occurs.

5. Stronger enforcement measures should be employed to minimize litter and dumping on private or public property. To facilitate this, responsibilities of pollution control officers should be increased to include additional forms of pollution control. Additional methods of encouraging a more pleasant environment should include free public disposal areas, roadside trash collectors liberally spaced and maintained, mandatory trash pick-up in urban and suburban areas, standards of disposal in rural areas, and a greater emphasis on recycling programs.

6. Accommodations for upgrading buildings having historical significance should be included in the building code. Zoning regulations and tax rate structures should be revised to encourage renovation of such buildings.

7. The visual disruption of scenic areas by industrial and related uses such as mining and quarrying operations should be strictly regulated and new uses properly located outside of scenic areas.

8. Existing regulations requiring landscaping and screening in new developments should be strictly enforced.

9. Esthetics should be considered when employing standard requirements to subdivisions and developments, and variances to standards should be considered when appropriate. The public should be educated about available design advice, with encouragement given to innovative design approaches. Such approaches should include the integration of buildings and the natural environment (indigenous architecture), multi-story buildings surrounded by open space, consideration of bulk and scale of manmade structures, more vegetation, and the sensitivity to landscape resource.

APPENDIX A

HISTORICAL BUILDINGS SURVEY

This survey was compiled as an interim list to illustrate the location, types, and backgrounds of historic and cultural sites that are important to San Luis Obispo's heritage.

This survey by no means is complete and should be expanded, modified, and evaluated by an historical preservation committee appointed by the City. Precise criteria of selection and priorities should be established and implemented as per recommendations in the Conservation Element.

Criteria for the selection of this list is based on State and Federal historical policies and format, but was expanded to sources of local interest.

Historical Building Evaluation and Criteria

1. Architectural - Source of Interest

    a. Represents an important architectural period and its place in the architectural scene (whether the building is part of a row or facade, combination or a group of similar compatible buildings).

    b. Is an outstanding representative of indigenous architecture.

    c. Is a rare surviving example of an architecture style or period.

2. Historical - Source of Interest

    a. Reflects historical, cultural, artistic, social, religious, military, or political associations of important local, State, or national consequence.

3. Visual Setting - Source of Interest

    a. Urban design quality.

    b. Importance of site or structure to its env ironment.

4. Physical Condition

This interim survey was compiled from numerous individuals and articles, with special contributions from: Louisiana Clayton Dart, Museum Curator; Carlton Winslow, AIA; Harold Miossi,

San Luis Obispo County Historical Society, Inc.; Cal Poly, School of Architecture; San Luis Obispo County Planning Department.

SAN LUIS OBISPO AREA

North City

CAL POLY AG ED BUILDING (1906) is the last building of the original three buildings of this college. It is an example of neoclassic architecture with influences of the Mission Revivalists. It is soon to be razed for a new engineering building. This building has served many functions and is still in use today.

ESTRADA ADOBE (c. 1840) was the early residence of the early pioneer Estrada family. This adobe is also known as Estrada Gardens because of the lush gardens that were planted around the homestead.

HANSEN BARN (1895) is symbolically reminiscent of the past. The California homestead is a monument to the indigenous architecture of the early settlers. The barn itself is not especially unique, but the importance lies in its historical image, quaintness, and usefulness. It has appeared in Life magazine and "California Living" for its scenic compatability with towering Bishops Peak.

SWINNERTON ADOBE (c. 1800) was located in the old Mission orchard on Stenner Creek. It was originally used as a grainery, then converted to a residence. It is covered by clapboard siding and is in much need of repair.

VASQUEZ-HOLLISTER ADOBE (1830) is located on the Cuesta College campus and is now a museum of the Chumash Indian history in San Luis Obispo County. This restored adobe was built on the Rancho Canada del Chorro and was used as a residence until the military purchased the property for a military base.

East City

BOWDEN ADOBE (1782) is believed to be the oldest remaining adobe in San Luis Obispo County. It is a two-story structure and is covered with clapboard siding and vines, but beneath are adobe walls two feet thick.

DALLIDET ADOBE (1853) is representative of the adobe houses of the early California period. Pierre Dallidet, a Frenchman, established a winery and vineyard on San Luis Creek. (State Historical Landmark No. 720)

GRAVES HOUSE (1930) is an example of eclectic architecture that used new engineering methods to solve site and design problems. The house has many fine personal details that are in excellent condition today.

"JUDGES HOUSE" (1906) was designed by Judge E. P. Unangst for himself. The house is of a unique neoclassic character made from redwood, local stone, and leaded glass. An interesting feature is its garden with unique flora. It was a famous landmark for earlier travels in the area.

KUNDERT MEDICAL BUILDING (1956) was designed by Frank Lloyd Wright and can be classed as an adaptation of Prarie architecture. This structure is a fine example of Wrights' ability to solve site and design problems.

MOTEL INN (1924) claims to be the first motel in the world. The architecture is of Spanish Revival style and today resembles its original condition.

South City

EDNA ANTIQUE SHOP (1908 & 1916) is built in early western style (Pioneer style) and is in good condition and reminiscent of the pioneer days.

ESTABLISHMENT (c. 1880) was located on Monterey Street and known as the Call Building. It was used as a rooming house. About 1895 it was moved to its present location. It is an example of early Mission Revival.

RAILROAD SQUARE (1904) is a three-story brick structure of Victorian Revival style. It was originally built and used by Channel City Commercial Supplies, a grocery warehouse. Today it is being refurnished as a stereo warehouse and professional offices.

RODRIQUEZ ADOBE (1858) was an early farm house of adobe construction that is still in use today. The use of the veranda is typical of early California ranch houses. The home is covered with clapboard and is in need of repair.

SANDERCOCK HOUSE (1905) was a house of the prominent Sandercock family in the "better section" of town. The house was a showplace in its time. It is an example of American Colonial Revival architecture.

SAN LUIS OBISPO SOUTHERN PACIFIC RAILROAD DEPOT (1894 & 1942) represents the important role played by the railroad in developing the County. The first structure was of a utilitarian nature and can best be described as Railroad architecture (demolished 1972). The second structure, that exists today, is of Spanish Revival architecture, which was an attempt by the railroad to identify its architecture with early California.

West City

DORN MEMORIAL (1906) is probably the most unusual and original memorial in the County. It is constructed from granite from Porterville and weighs several hundred tons. It cost approximately $100,000 to build at that time.

KORSMEYER HOME (1903) is a two-story house of Victorian style. The entire house is of redwood and cedar and has a slate roof. It was piped for gas lighting and one of the only houses left in the area with curved glass windows. Korsmeyer was an officer of the Old Coast Railroad Company.

LATIMER ADOBE (1860) was well known to early day citizens. It has also been known as the Parker or Hays adobe and it is now sometimes known as the Leitcher adobe.

MADONNA INN (1958) is a rare and unique example of one man's dream to create an inn with an old world flavor. Everything is different and architecturally can be classed as "eclectic" to "fairy-tale". A superb example of fine craftsmanship of the best materials available.

MYRON ANGEL HOUSE (1870's) is a two-story house of Victorian style architecture that has fine architectural details and structural connections. The house is in excellent condition. This was the home of the famous local historian, editor of an early San Luis Obispo newspaper, and one of the founders of Cal Poly.

OCTAGONAL BARN (c. 1900) is an unusual eight-sided barn structure once used by the Santa Fe Dairy. The barn is symbolically reminiscent of the past and represents an attitude of optimism and romanticism.

OLD GAS HOUSE (1904) was originally used by the San Luis Obispo Gas and Electric Company. The structure is of Caen stone from Arroyo Grande and has a unique window detail. The structure is in good shape and hopefully will be put to a new use.

REYNOLDS-ERICKSON HOUSE (1890) is a two-story Victorian style house that is striking in appearance. Today, it is used as apartments and is in need of repair.

SIMMLER ADOBE (c. 1852) was the residence of an early postmaster in San Luis Obispo. This example of Early California architecture is still in use today and is sometimes known as the Waterman adobe.

ST. STEPHANS EPISCOPAL CHURCH (1867) is an example of Carpenter Gothic architecture. It is built of redwood and pine beams. It was one of the first Episcopal churches in California. The original pipe organ was donated by the Hearst family.

Downtown

AH LOUIS STORE (1874) symbolizes the noteworthy heritage of the Chinese Americans in the building of California. Ah Louis was a leader of the Chinese in the construction of railroads and the development of the mining industry. The store is also one of the earliest buildings in the County to be made of fired brick. (State Historical Landmark No. 802)

ANDREWS ADOBE (c.1800) is of Early California architecture style that later became the residence of J.P. Andrews, a prominent citizen.

ANDREWS BANK BUILDING (1893) was built by an early pioneer of the area - J.P. Andrews. The building is constructed of granite and terra cotta and was a hotel and a bank. The building is of a neoclassic architectural style with fine detail stone work.

BIDDLE HOUSE (1897) is a well-kept 3-story Victorian house with excellent detail work and stained glass windows. One of the finest examples of this type of architecture.

CIGAR FACTORY RESTAURANT (1897) was formerly an active Victorian style cigar factory with its own registered cigar brand (Pioneer Cigar). Today it serves as an elegant bar and restaurant and has been remodeled to a late 19th century decor.

FREMONT THEATRE (1942) is a fine example of the International style of architecture. This type of architecture led to our contemporary architecture of today. It is one of the few examples of this type of architecture left in California and still in use.

FIRST PRESBYTERIAN CHURCH (1905) is an example of neoclassicism, especially being reminiscent of early English Gothic churches. The church is of granite rubble from Bishops Peak and has huge wooded trusses and fine detail work on the interior.

HAGEMAN SANITARIUM (1880) is of Yankee influence and is adorned with shingles which were popular at this time.

JACK MANSION (1870) is a two-story wood house of Yankee influence and early American Colonial Revival. The house is a basic balloon frame structure that is in good structural condition today.

MISSION SAN LUIS OBISPO DE TOLUSA (1772) was founded by Father Junipero Serra on September 1, 1772. This was the fifth in a chain of 21 missions founded by the Franciscan Padres. It was built by Chumash Indians living in the area. Its combination of belfry and vestibule is unique among California missions. Around the Mission grew the City of San Luis Obispo. (State Historical Landmark No. 325)

MURRAY ADOBE (1850's) was the home of the distinguished jurist and writer, Judge Walter Murray. He was an early editor of the Tribune, which was printed in this building. The adobe is being rebuilt to become part of the historical setting of Mission Plaza. An example of Early California architecture.

RAMONA DEPOT (1889) was an official depot of the Southern Pacific Railroad Company which is the only thing left of the luxurious Ramona Hotel (which fronted on Johnson Avenue between Marsh and Higuera Streets). The four-story structure burned to the ground in 1905.

SAN LUIS OBISPO COUNTY HISTORICAL MUSEUM (1905) was formerly the City library until 1956. Money for the building was donated by the Andrew Carnegie Foundation. It is constructed of granite from Bishops Peak and is an example of American Colonial Revival architecture.

OLD ZION LUTHERAN CHURCH (1909) is a wood structure of Gothic influence, particularly the window shapes. Of other importance is the belfry which actually becomes an element of design. The structure has now been converted to an office for a title insurance company.

SAUER ADOBES (c. 1860) were early adobe homes of various citizens. The larger of the two adobes is covered with clapboard and presently used as commercial establishments. These are examples of Early California architecture.

SINSHEIMER STORE (1884) was founded by a pioneer San Luis Obispo family. The store belongs to the family of "iron front", which was a big step towards steel construction. The facade was cast in San Francisco and shipped here. The remainder of the building is of brick from the Ah Louis brickyard. The building served as a general store for many years and is of Venetian Renaissance architecture.

HISTORICAL POINTS OF INTEREST

Cal Poly University
Cuesta Grade - Old Stage Route
- Path of the Padres
- S.P. Railroad
Fremont Marker
Los Osos Valley
Mission Plaza and San Luis Creek
San Luis Obispo County Courthouse
Nine Peaks (Chorro Valley)

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